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Town Council of Benoni

ANNUAL REPORT
of the
Medical Officer of
Health

For the Year

1st of July, 1938—30th of June, 1939

• • •

"THROUGH EDUCATION TO HEALTH"



GEO. CONSTABLE LTD.

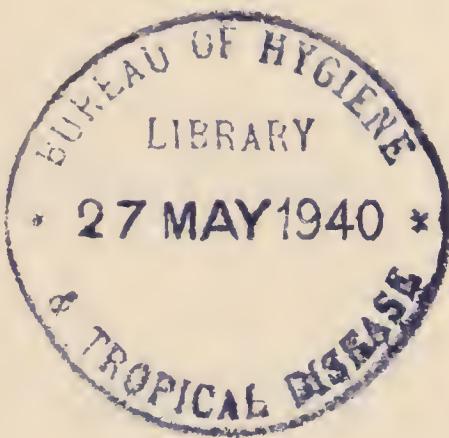


*Met die Komplimente
van die
Mediese Gesondheidsbeampte.*

PUBLIEKE GESONDHEIDSDEPARTEMENT,
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Town Council of Benoni

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Medical Officer of
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"THROUGH EDUCATION TO HEALTH"

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1938-39

PUBLIC HEALTH COMMITTEE
of the
TOWN COUNCIL OF BENONI

1938-1939

Councillor A. A. Webb (Chairman).

His Worship the Mayor, Councillor M. Nestadt, M.P.C., J.P.

Councillor C. L. Adams.

Councillor Lieut. Col. R. Bodley.

Councillor J. H. Greijbe.

Councillor T. Hewitt.

Councillor Mrs. S. A. Hills.

Councillor W. H. Neethling.

Councillor G. A. Watt.

To His Worship the Mayor,

and Members of the Town Council of Benoni;

Your Worship, Councillor Mrs. Hills, and Gentlemen,

I have the honour to present my third Annual Report dealing with the health and sanitary conditions of Benoni during the year ending on the 30th of June, 1939.

The steady improvement in these conditions, noted last year, has been maintained. Though much remains to be done, especially in the direction of the creation of health among all races in Benoni, the present records prove that a handsome return — in the saving of lives and the reduction of preventable and crippling illness — is accruing to our town as the direct result of our endeavours to provide Benoni with an efficient and organised health service.

I desire once again to bring to your notice the eager activity displayed by the whole of my staff during the year under review. They have become imbued with the spirit lying behind our motto — “Through Education to Health” — and have not spared themselves in the carrying out of Council’s work.

May I express my warm appreciation, also, of the generous assistance which the Chairman of the Public Health Committee, Councillor A. A. Webb, has continuously given to me and my Department during the year.

I have the honour to be,

Your obedient Servant,

C. C. P. ANNING,

Medical Officer of Health.

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INTRODUCTION

This Report upon the health and sanitary condition of the Municipality of Benoni for the year ending on the 30th of June, 1939, is prepared in compliance with the requirements of the Public Health Act, No. 36 of 1919.

The pages which follow record not only the continued extension of our activities to conserve the health of the people and to prevent the occurrence of disease, but they also disclose the increasingly satisfactory downward trend of sickness and death rates. As compared with the period 1931-1936, deaths due to enteritis in young children have been more than halved, deaths due to enteric fever are only one-fifth of what they were in 1931-1936 and for the first year on record no European died from enteric fever, the fatality rates for pneumonia and bronchitis have been considerably reduced, and fatal endings to infectious diseases such as measles and influenza are only half as common as they were in 1931-1936. The European infantile mortality rate is now at its lowest recorded figure—48.8.

All these are satisfactory features of the Report. Much less satisfactory are the positions disclosed by the intensive studies undertaken to assess the nutritional state of the people and to discover the frequency of occurrence of syphilis in Benoni.

The nutrition of the majority of the European section is apparently reasonably good; of the majority of the non-mining Native population and of the Coloureds it is depressingly bad. Since this report was completed War has come upon us again. If, as a result of War, the essential foodstuffs should become even more expensive, then as surely as the night follows the day we shall experience among the poorer Europeans and among almost all the non-Europeans in Benoni an increase in the sickness and in the fatality rates due to those diseases which prosper most in under-nourished bodies. The major public health problem, if War is prolonged, will be the provision of adequate supplies of essential foodstuffs to the thousands of Benoni residents who even in times of prosperous peace, live very near to, or below, the starvation line.

The position with regard to syphilis is serious. All our investigations prove that at least one-third of the town's Native population is suffering with the latent form of this disease. Though comparatively few are suffering with the disease in its openly contagious stages, everyone of these syphilitics is the less efficient, the less healthy and the more liable to fatal illness because of the spiro-choetes in his or her blood. A renewed campaign of education and a further extension of our venereal disease treatment facilities is, therefore, indicated for the coming year.

The anticipated measures for the re-housing of persons at present living in unfit dwellings have failed to materialise in the absence of the expected funds from Government for sub-economic housing schemes. Until such houses can be built it is impossible to remove from the face of Benoni those slum dwellings which at the

present time play an important part in the creation of ill-health among the occupants. The Asiatic Section is the worst section of our Town. Over-crowded with Natives living in rented shacks and rooms very little can be done to improve this area until new houses are erected into which the Natives can be moved. And new houses cannot be built until funds become once more available for housing schemes.

A serious time of testing of the value of the organised health services of Benoni lies ahead if the War is prolonged. At least we can look back with some satisfaction at the work done, the lives saved, the illness prevented, and the health created during the year now under Report.

For the first time an attempt is made to represent certain statistics pictorially. It is hoped to utilise this method of presentation of salient facts much more extensively in later Reports.

I.—VITAL STATISTICS

1. POPULATION (Pages 37-38).

The estimated total increase in population during the year is 790 persons; this includes a known decrease — to the extent of 1,372 — in the total of mining Natives employed with the Benoni Municipal area.

2. BIRTHS (Pages 38-39).

The European birth rate again fell slightly during the year, and was 23.84; this rate still compares favourably with the rate of 22.43 for the years 1931-1936. Male European births outnumbered female in the proportion of 116 to 100. There were 1.99 illegitimate births in every 100 European births.

Native births were incompletely registered. The Coloured and Indian rates remained high at 45.5 and 43.6 births per 1,000 population respectively.

3. DEATHS (Pages 39-44).

The European death rate (7.80) remains low. The non-mining Native death rate (19.61) is the lowest ever recorded, and is now little more than half the rate (37.38) recorded for 1931-1936. Outstanding this year is the sudden fall in the death rate (4.77) for mining Natives; this is due almost entirely to the decrease in the number of deaths due to non-tubercular lung diseases, a gratifying state of affairs which has followed the general use in mine hospitals of the drug M and B 693 in the treatment of these lung affections.

The following death rates indicate the improvement in the conditions since organised health work was started:—

	Deaths per 1,000 Population (All Races)		
	1931-36	1938-1939	
1. Lung diseases (non T.B.)	4.31
2. Diarrhoea and Enteritis (under 2)	2.57
3. Violence	1.21
4. Infancy and Congen. Malformations		...	1.18
5. Other Infect. Dis. (excl. Syphilis)	1.12
6. Disease of Heart	0.91
7. Tuberculosis (all forms)	0.80
8. Enteric Fever	0.79
9. Cancer	0.28
10. Syphilis	0.17
			3.46
			1.05
			1.27
			0.83
			0.40
			0.87
			0.51
			0.16
			0.26
			0.31

Violence and syphilis become more prominent among the local captains of the battalions of death. Under the heading of "violence," fatal mine accidents have increased — the rate for mining Natives in 1938-1939 being 1.73 deaths due to mine accidents per 1,000 mining Natives in Benoni. Deaths due to road accidents were as frequent as they were in 1937-1938.

4. INFANTILE MORTALITY (Pages 45-46).

The European infantile mortality of 48.82 infantile deaths per 1,000 babies born is the lowest recorded for Benoni. The Native rate is still unreliable owing to the continued inadequate registration of births, but it is obviously far too high; the details given on page 21 indicate the continued need for infant and maternal work among the Native population.

DEATHS — ALL CAUSES

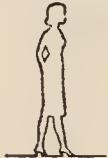
DEATHS OCCURRING IN ONE YEAR

(Among 1,000 People in each of these Groups)

1931-1936

European Males ...		11.4
European Females		7.2
Mining Natives ...		10.3
Non-Mining Native Males ...		36.9
Native Females		39.5

1938-1939

European Males ...		8.77
European Females		6.73
Mining Natives ...		4.77
Non-Mining Native Males ...		18.73
Native Females ...		20.92

MUNICIPALITY OF BENONI

LEADING STATISTICS

Year ending on the 30th of June, 1939.

	All Races	Euro- pean	Min. Nats.	Non- Min. Nats.	Col- oured	Asia- tic	All Non- Euro- pean
POPULATION	81778	23200	32278	23200	2000	1100	58578
Birth Rate*	(21.01)	23.84	—	(15.0)	45.5	43.6	(18.52)
Illegitimacy Rate	12.4	1.99	—	26.2	27.5	4.2	24.2
Death Rate	10.54	7.80	4.77	19.61	21.0	26.41	11.62
Infant Mortality Rate	—	48.8	—	(583)	176	229	—
Maternal Mortality Rate	7.7	1.8	—	20.1	0.0	0.0	—
DEATH RATES (Various)							
Lung Disease (Non T.B.)	3.46	1.98	0.93	7.76	6.50	10.91	4.01
Violence	1.27	0.64	2.10	0.82	0.50	0.91	1.52
Enteritis (under 2)	1.05	0.04	—	3.45	1.50	1.82	1.45
Disease of Heart	0.87	1.51	0.18	0.95	1.00	2.70	0.61
Dis. Peculiar to Infancy	0.78	0.60	—	1.81	2.00	3.60	0.85
Pulmonary Tuberculosis	0.51	0.39	0.22	0.86	3.00	0.00	0.56
Syphilis	0.31	0.04	0.06	0.95	0.00	0.00	0.41
Cancer	0.26	0.60	0.03	0.22	0.50	0.00	0.12
Enteric Fever	0.16	0.00	0.09	0.30	1.00	0.90	0.22
INFECTIOUS DISEASE INCIDENCE RATES:							
Measles	3.88	8.19	3.38	0.65	0.50	1.82	2.17
Whooping Cough	1.37	34.5	0.00	0.30	2.00	0.00	0.19
Pulmonary Tuberculosis	1.25	0.78	1.33	1.21	5.50	1.82	1.43
Enteric Fever	0.54	0.56	0.31	0.68	2.00	0.90	0.53
C.S. Meningitis	0.28	0.09	0.53	0.17	0.00	0.00	0.36
Diphtheria	0.22	0.69	0.00	0.09	0.00	0.00	0.03
Scarlet Fever	0.21	0.73	0.00	0.00	0.00	0.00	0.00
Erysipelas	0.21	0.47	0.15	0.04	0.00	0.00	0.10

* Birth rates for all races based on the population excluding mining Natives. The non-mining Native birth and infantile mortality rates are still unreliable owing to inadequate registration of Native births.

Population figures (estimated) as supplied by the Director of Census and Statistics, except for Mining Natives, in which case the figures were obtained from a local census.

All rates, except illegitimacy rates (percentages), given per 1,000 population or per 1,000 live births.

All rates corrected for outward transfer and corrected for inward transfer for Benoni residents dying or being born in the Benoni-Boksburg Hospital.

II.—METEOROLOGICAL READINGS

The recording of meteorological data, as outlined in the last Annual Report, continued. These records are summarised on page 36.

III.—HEALTH EDUCATION

The first stage in our health educational campaign — the arousal of interest in health matters — is nearing completion. The second, and more difficult, stage — that of providing exact information for those whose interest has been aroused and are asking for information — will now occupy most of our time.

1. Training of Health Inspectors. 24 Native students completed the first year, and started the second year, of instruction provided by the Witwatersrand Technical College at the Location Clinic for the Health Inspectors' certificate of the Royal Sanitary Institute. 14 Native students started the first year of training at the beginning of 1939. Reference was made to these courses in the last Annual Report.

2. Nutrition Education. The Medical Officer of Health gave a series of eight broadcast talks from the Johannesburg studio of the South African Broadcasting Corporation under the general title of "Round the Table." These talks on nutrition have been reprinted in *Housewives* — the monthly journal of the Housewives' League. On August 30th, the Medical Officer of Health addressed a nutrition conference called by the National Council of Women at Bloemfontein, on "National Food and National Fitness." Further addresses on this subject were given to the Modder East Housewives' League, the Vanguard Club, Johannesburg, etc. An Afrikaans edition of "Food Facts and Daily Diets" was issued by the South African Red Cross Society. An article on "Health Policy in relation to Nutrition Needs" was written by the Medical Officer of Health for the Nutrition number of "Race Relations News" Vol. VI, No. 1. A stand demonstrating with actual foodstuffs the requirements of a daily diet well balanced for health was prepared for the Benoni Progress Exhibition in the New Town Hall in October. An exhibit of vegetables available at the four seasons of the year was prepared for the Annual Show of the Benoni Horticultural Society in February.

3. Films. Assistance was given to the South African Red Cross Society in the preparation of the first South African health film for Natives — a film on venereal disease called "The Two Brothers."

4. Other Lectures, etc. A regular series of talks to the schools in the Location on health topics was carried out by the non-European health assistants. Lectures by the Medical Officer of Health and the Assistant Medical Officer of Health, in Benoni and elsewhere, included such topics as Socialised Medicine, the

Work of the Health Department, Nursing and the Public Health, Venereal Diseases, Tuberculosis, the Story of the Infant Welfare Movement, the Public Health and the Insurance Profession, (Architectural) Planning for Health, etc., etc. The Medical Officer of Health (in absentia) on the 25th of May delivered his Presidential address to the South African (Nat. and Col.) Health Society at Lovedale, C.P.; the address was entitled "Men of Vision."

5. Schools. Copies of the booklet, "The Health Zoo," issued by the Witwatersrand Public Health Consultative Committee were distributed to all Schools. By the courtesy of Dr. Louis Dublin, School Health Bureau Welfare Division, Metropolitan Life Insurance Company, New York, the Department has been able to circulate to all teachers in Benoni a monthly "release" containing information of a scientific nature about the human body and about hygiene matters.

6. Dairymen and Poultry Keepers. With the assistance of the Union Department of Agriculture, the weekly press releases of that Department have been made available to us, and extracts of interest to dairymen and poultry keepers were circulated regularly to such workers in Benoni.

7. Conferences and Meetings of Societies. The Medical Officer of Health attended, as Councel's delegate, the National Coloured Convention in Capetown in July; the Annual Congress of the South African Medical Association in Lourenco Marques in September; and the Nutrition Conference called by the Institute of Race Relations, National Council of Women, and South African National Council for Child Welfare, in Capetown in February.

The Medical Officer of Health, and other members of the Staff, regularly attended the meetings of the Witwatersrand Public Health Consultative Committee; the Routine Work Committee and Film sub-committee of the National Health Education Committee of the South African Red Cross Society; and the Witwaterstand Anti-Tuberculosis Council.

IV.—PHYSICAL EDUCATION

During the Benoni Progress Week various demonstrations and lectures dealing with physical education were arranged in the Town Hall.

In June, Council's representatives met the representatives of the Witwatersrand Technical College and of other Reef Municipalities in Johannesburg, to discuss future developments so far as the physical training movement on the Witwatersrand was concerned. The Director of the Technical College offered to start a scheme at the College's gymnasia in Benoni for the benefit of local citizens without asking the Town Council for any money. It was decided by Council to accept the offer of the Witwatersrand Technical College to run physical education classes for the people of Benoni.

Meanwhile the Benoni Gym. and Health Club has continued with its activities and has provided classes for a certain number of interested persons. It is understood, however, that the Technical College will put forward a wider scheme of physical training which will cater for all sections of the community and will provide a diversity of physical activities.

V.—INFECTIOUS DISEASE

1. GENERAL (Page 58).

Total number of accepted notifications increased from 675 in 1937-1938 to 692 this year. An increase (from 25 to 112) was noted in the total number of whooping cough cases, an increase (from 14 to 17) in scarlet fever, and an increase (from 7 to 18) in diphtheria cases notified. The diseases most frequently notified were measles (317), whooping cough (112), tuberculosis (111), enteric fever (44), cerebro-spinal meningitis (23), diphtheria (18), scarlet fever (17).

Almost every case, except those suffering from measles and whooping cough, was isolated in hospital.

The final plans for the Benoni-Boksburg Infectious Diseases Hospital, to be situated in the grounds of the Boksburg-Benoni Hospital, were completed and approved by the Municipalities concerned and by the Union Health Department. The total cost of this Hospital, containing 20 European and 20 non-European beds (in two bed wards), will be approximately £29,000, of which the Union Government will bear one-half, and the Municipality of Benoni, the Municipality of Boksburg and the Provincial Administration will each bear one-sixth. It is anticipated that building will start in November 1939.

2. VARIOUS INFECTIOUS DISEASES.

No cases of **Anthrax**, human or animal, were reported.

One case of **Smallpox** was recorded, in February. The patient was a Native female who had eight days previously left Evaton, in the Vereeniging Magisterial area, to come to a house at the Married Quarters, New Modder G.M. The patient was isolated at Rietfontein Hospital, the necessary precautions were taken in Benoni, and no further case was reported. During the year 962 vaccinations were done at the Pass Office by the Medical Officers in their capacity as Public Vaccinators. The population of Benoni is now well protected against Smallpox.

Only one case of **Leprosy**, in a Native male, was notified among Benoni residents. This Native had been employed for eight months on a mine property.

Six cases of **Tick-Typhus Fever**, among Europeans, were notified. All were imported infections, mostly from the bushveld in the Northern Transvaal.

Of the 17 cases of **Erysipelas**, 11 occurred in Europeans, 5 in mining Natives and 1 in a non-mining Native.

No case of **Plague** was reported, in rodents or humans.

No *A. costalis* (vel *gambiae*) or *A. funestus* was found in the Benoni area, and no case of **Malaria** contracted infection in Benoni during the year. Several imported cases, infected at the Natal coast or in the low veld, occurred among Benoni residents. No deaths due to malaria were registered.

Cerebro-Spinal Meningitis (Page 56) accounted for 5 deaths out of 23 cases notified. 16 of these cases occurred in mining Natives of whom all but 2 were in the first three weeks of their period of service in Benoni.

18 cases of **Diphtheria** were notified (16 European, 2 non-mining Natives), of whom 1 died. Diphtheria is on the increase in Benoni; 1 case was notified in 1936-1937, 7 cases in 1937-1938, and 18 cases in 1938-1939. It was considered advisable to ask for the co-operation of the local Medical Practitioners in a preliminary attempt to encourage the immunisation of Benoni children, and during the year approximately 400 children received Ramon Anatoxin. Anatoxin, as well as antitoxic serum for the treatment of cases, was issued free for indigent cases. Every child under the age of 5 years should be immunised.

Scarlet Fever, occurring only among European children and showing a mild type of infection, accounted for 17 notifications.

Puerperal Fever showed the same frequency as last year — 10 cases (3 European, 6 Native, and 1 Indian), with 1 death. With the increasing activity of our District Midwifery Service it may be hoped that a gradual fall in the occurrence of this infection will take place.

The 317 cases of **Measles** (pages 54-55) notified included 190 European, 109 mining Native, 15 non-mining Native, 1 Coloured, and 2 Indian cases. Once again most of the European infections occurred among school-children in the 5-9 years age group, and September and October showed the usual seasonal frequency. 1 death, of a non-mining Native child, due to measles was registered.

Whooping Cough (112 cases) was apparently much more frequent than during 1937-1938 when there were only 25 cases notified. This increase may have been due to more efficient notification. Out of 11 non-European cases, 4 died. No European children died from Whooping Cough.

One case of **Undulant Fever** was imported into the area from the Kimberley district.

One Indian case of **Trachoma** was notified. The infection was of old standing, contracted in India.

VI.—THE ACUTE BOWL INFECTIONS

Of all deaths during 1931-1936 — 25%, during 1936-1937 — 16%, during 1937-1938 — 19.5%, and during 1938-1939 — 13%

were due to acute infections of the intestines. It would appear that the war on preventable diseases associated with dirt is gradually being successful. But the return for these diseases should be 0%; we cannot be satisfied until diseases due to germs living in dirt and swallowed by human beings are non-existent in Benoni. This day will not come until the whole area is sewered, all residents have learned the simple rules of food hygiene, and fly-breeding has fully been overcome.

1. ENTERIC FEVER (Page 51).

Of the 44 cases notified — the lowest ever recorded for any year in Benoni — 10 were “imported” cases; therefore only 34 cases were infected in Benoni. Of the 44 cases, 13 were European, and of these 6 were resident in the Township, 4 on Mine Properties, and 3 in the Semi-Rural areas. 10 cases occurred among Mining Natives. The remaining 21 non-mining non-European cases were, for the most part, living in the Location, and particularly in the Asiatic Section and portions of the Location bordering on the Asiatic Section. Until the latter area has been cleaned up it will serve as the main reservoir of enteric infection within the Municipality.

For comparative purposes the totals of accepted cases (including “imported” cases) in previous years may be noted:—

	European	Mine Nat.	Other	Non-Eur.	Total
1931-32	...	25	92	43	160
1932-33	...	16	87	47	150
1933-34	...	29	182	103	314
1934-35	...	10	63	36	109
1935-36	...	51	119	54	224
1936-37	...	17	47	16	80
1937-38	...	14	30	23	67
1938-19	...	13	10	21	44

For the first year on record, no deaths due to enteric fever were recorded for Europeans during 1938-1939.

2. ENTERITIS (Page 52).

Death rates for enteritis (under 2 years) showed a marked decrease in comparison with recent years. The deaths per 1,000 population per annum for 1931-1936 were:—

Europeans	...	...	0.51
Non-Europeans	...	...	3.37
All races	...	...	2.57

For 1938-1939 they were:—

Europeans	...	...	0.04
Non-Europeans	...	...	1.45
All races	...	...	1.05

With the inauguration of a creche at the Location during the coming year, to which can be brought the many infants who are at present left alone all day in dirty surroundings while their parents are out working, it may be anticipated that a further reduction in death rates due to this preventable infection will follow.

3. DYSENTERY.

Last year it was possible to suggest that dysentery as a cause of death might be decreasing, but in 1938-1939 2 mining Natives and 5 non-mining Natives died from amoebic dysentery.

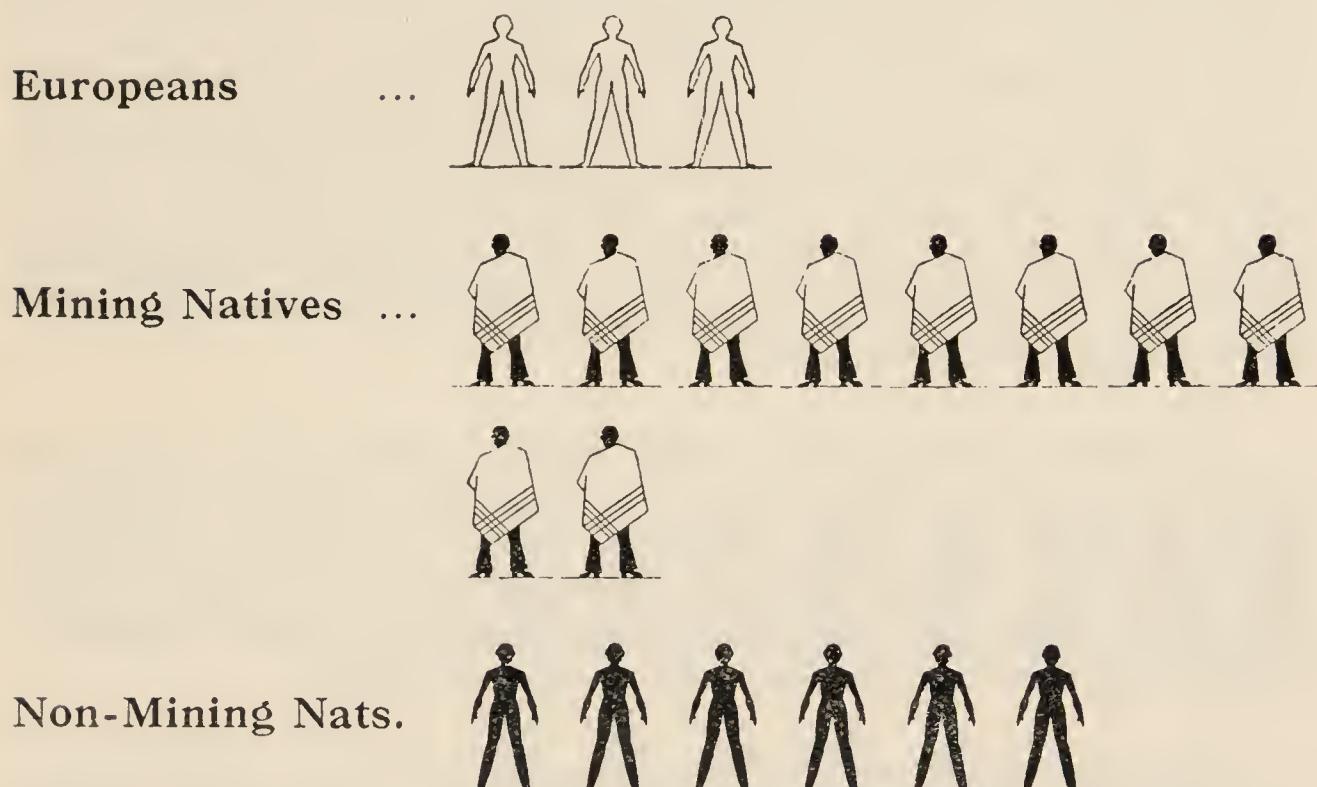
ENTERIC FEVER

CASES IN ONE YEAR

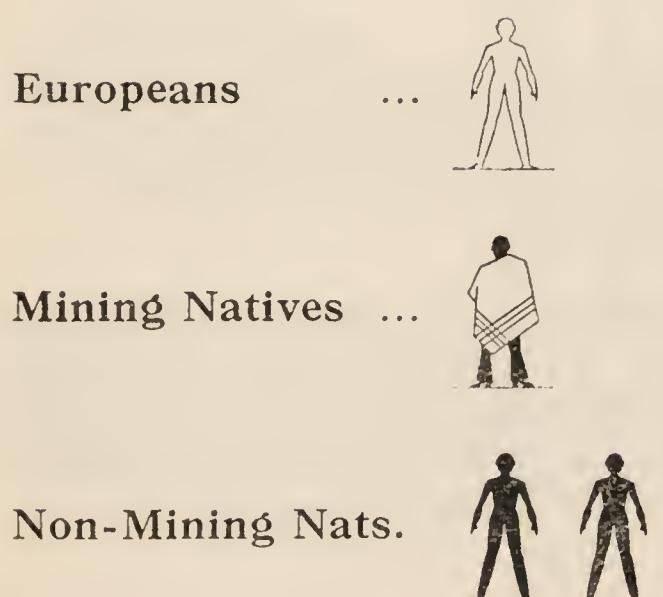
(Each Figure represents 10 cases)

1931-1936

(Average for one year.)



1938-1939



VII.—TUBERCULOSIS

(Page 48).

The incidence rates (1.25 cases per 1,000 population) and death rates (0.51 deaths per 1,000 population) for all races due to lung tuberculosis were very slightly lower than those for 1937-1938. Once again the non-European population, and especially the Coloureds, showed the highest rates.

Giving evidence at the Tuberculosis Conference called by the Secretary for Public Health in Capetown in February, the Medical Officer of Health reported that the highest incidence of tuberculosis was to be found in Benoni among non-mining Natives and among Coloureds living under Location conditions, and particularly among young females. Among non-mining Natives, 24% of the male and 57% of the female deaths due to tuberculosis occurred in the 15-34 years age group over the period 1931-1938. Similarly among Coloureds, 12% of the male and 43% of the female deaths occurred in the 15-34 age group. Among mining Natives the death rate is falling; among Location Natives and Coloureds it is rising. Non-pulmonary tuberculosis is comparatively uncommon as a cause of death among all racial groups.

All cases of lung tuberculosis notified during the year were isolated in hospital. Most of these were admitted to the Boksburg-Benoni Hospital for active treatment there or pending transfer to Springkell Tuberculosis Hospital (Europeans) or Rietfontein Tuberculosis Hospital (non-Europeans). Mining Natives were isolated, pending repatriation, in the various mine hospitals.

Considerable success has been recorded by the Physician at the Boksburg-Benoni Hospital who has been treating with artificial pneumo-thorax many of our non-European cases. This work will form the subject of later report. All cases successfully treated by this method are discharged to their homes in due course, and the arrangements for their regular attendance for refills at the Hospital are made by this Department.

Up to the present it has not been possible to provide an adequate clinic service for the examination of all contacts of positive cases, but this essential part of the tuberculosis control programme is receiving the most careful consideration.

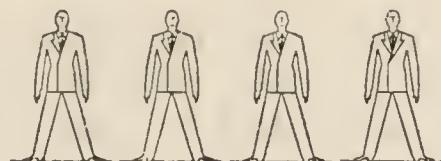
The Witwatersrand Tuberculosis Council investigated a scheme for a long-term tuberculosis survey of a section of the non-mining Native population on the Reef. The details of this proposed survey — intended to provide exact evidence of the tuberculosis position among our Location populations — are being worked out.

PULMONARY TUBERCULOSIS

DEATHS ANNUALLY FROM 1931-1939

(Per 10,000 People in each of these Groups)

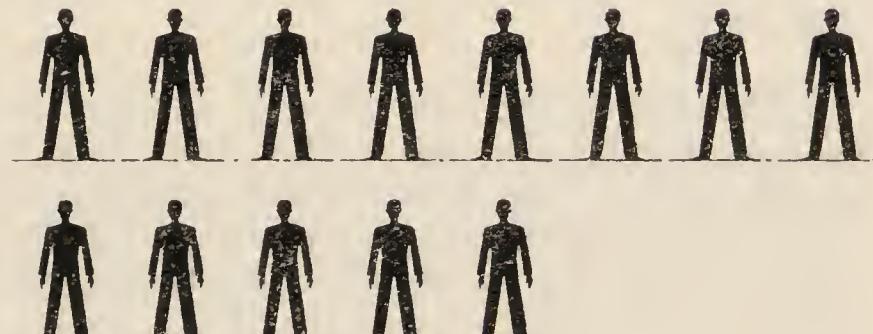
European Males ...



European Females



Non-Mining
Native Males ...



Native Females



VIII.—VENEREAL DISEASES

(Page 62).

We are beginning to realise the significance of the venereal diseases, and especially of syphilis, as the origin of much of the ill-health, the crippling, and the preventable deaths which occur year by year among our non-European population. Gradually we collect evidence which suggests that, among these people, syphilis is the most important factor — next to under-nourishment — in the production of ill-health and of the present high infant mortality rate.

Supplement No. 10 of "Venereal Disease Information," issued by the U.S. Government Public Health Service, lays down the minimum requirements recognised in that country as necessary for adequate venereal disease control in a large town. It is satisfactory to find that the working scheme in Benoni complies fully with those standards, especially as regards follow-up and case-finding work. During the year a total of 2906 visits was made by the Native Nurse (V.D.) (appointed in May) and the Native health assistants to infected persons, defaulters, contacts, and suspected sources of infection. By gaining the confidence of their own people, these trained workers are sowing the seeds of real success in venereal disease control and, through persuasion and explanation instead of by compulsion, they are gradually teaching the people that it is worth their while to attend for examination and any necessary treatment.

The end of the first year of working of our full clinic system discloses a great increase in the work done. To take one example — in 1937-1938, 1,790 intravenous (syphilis) injections were given, in 1938-1939, 5,653. This total will undoubtedly increase as our educational work grows, for there is already in existence a mass of evidence indicating the high proportion of infected persons among the non-European population.

What exact evidence of syphilis incidence is available? It can be obtained from the following sources:—

1. Examinations at the Pass Office.
2. Examinations at the Ante-Natal Clinics.
3. The Death returns.
4. Attendances at the V.D. Clinics, and at Private Practitioners.

1. Among 15,885 Native males medically examined at the Pass Office by this Department during the year, 127 (0.8%) were found to be suffering with venereal disease in a communicable form and were immediately removed to Rietfontein Hospital for isolation and treatment. A further 2,123 (13.4%) were, on clinical grounds, suspected of suffering from latent syphilis and were referred to the V.D. Clinic for further examination; of these, about half (1,129) actually presented themselves for further examination, and 414 had a positive Wassermann test. Therefore, of the 15,885 Natives

examined at the Pass Office, 127 had infectious venereal disease and 414 had latent syphilis, which would give us an incidence rate for venereal disease of 3.4%. It was considered that this rate was, almost certainly, too low to be true. Therefore a series of blood tests was started on batches of Natives arriving at the Pass Office, without any selection of cases, on one day each week. At the end of the year 254 had been so tested and 34.2% were found to have latent syphilis. This enquiry continues and will form the subject of a later report.

2. An analysis of the bloods of women attending at the ante-natal (non-European) clinics, where routine Wassermann tests are done, and of women first coming to the V.D. clinic for examination, reveals that out of 808 examined 346 (42.8%) were suffering from syphilis in a latent form. Among these 908 women were 297 who came to the ante-natal clinics not because of illness, but merely because they were pregnant, and very few among them showed any clinical sign or evidence of syphilitic infection; yet 38.4% of these women were suffering from latent syphilis — almost certainly to be handed on to their babies who must consequently be crippled from the start in their attempt to struggle for existence during the fateful first year of urban Native life.

Among the 808 women were 711 Natives among whom 42.2% showed positive syphilitic reactions, 77 Coloured (52%) and 20 Asiatics (25%).

3. Perhaps as the direct result of the increased interest shown recently in the prevalence of syphilis, deaths registered as due to that disease have increased considerably. During the past 7 years less than 1 European death and about 9 non-European deaths due to syphilis have been registered each year, during 1938-1939 1 European and 24 non-European syphilis deaths were recorded. Of these 24 non-European deaths, 12 occurred during the first year of life, and 22 deaths were registered as due to syphilis among non-mining Natives out of a total of 456 deaths.

4. A confidential enquiry, in which only totals of cases treated in the year were asked for from local practitioners, has made it possible for figures to be obtained indicating the approximate total of new cases coming under treatment in Benoni during 1938-1939, including new cases at the Municipal Clinics, etc.

	European			Min.			Non.-Min.			Col.			Ind.			
	M.	F.	T.	M.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Gonorrhoea	85	18	103	36	82	72	154	7	7	14	5	0	5			
Syphilis	38	27	65	147	482	400	882	14	45	59	8	6	14			
TOTAL	123	45	168	183	564	472	1036	21	52	73	13	6	19			

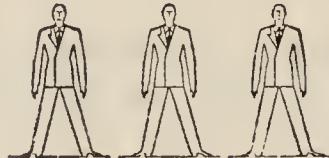
TOTAL		
M.	F.	T.
215	97	312
689	478	1167
904	575	1479

SYPHILIS

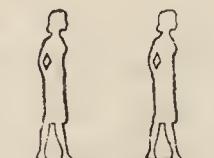
CASES NEWLY DISCOVERED IN 1938-39

(Per 1,000 People in each of these Groups)

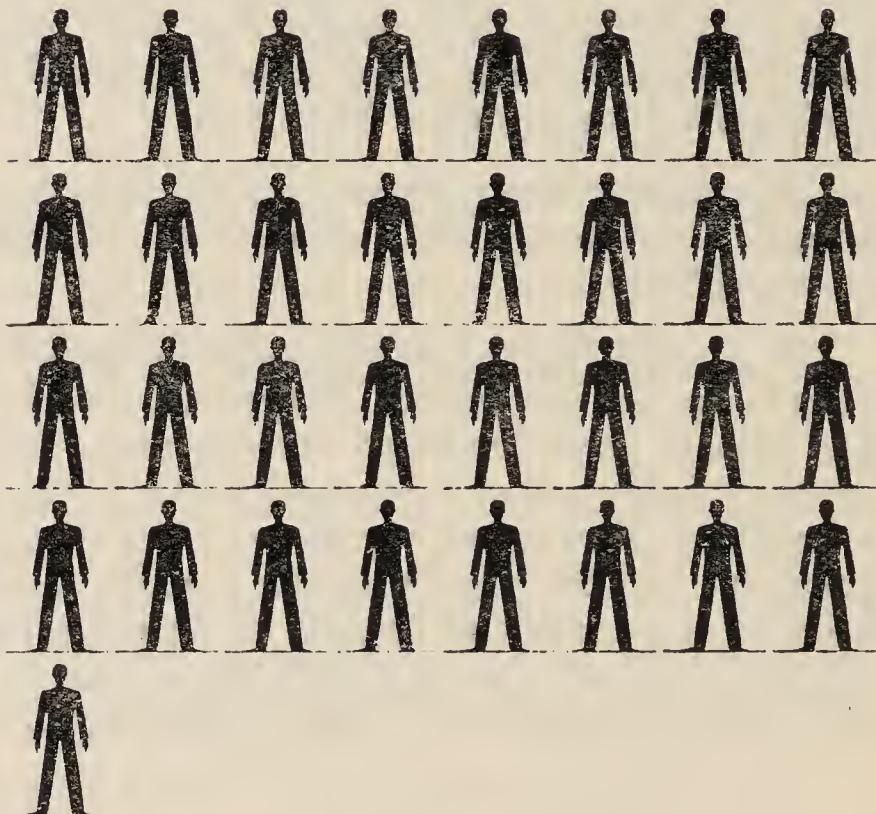
European Males ...



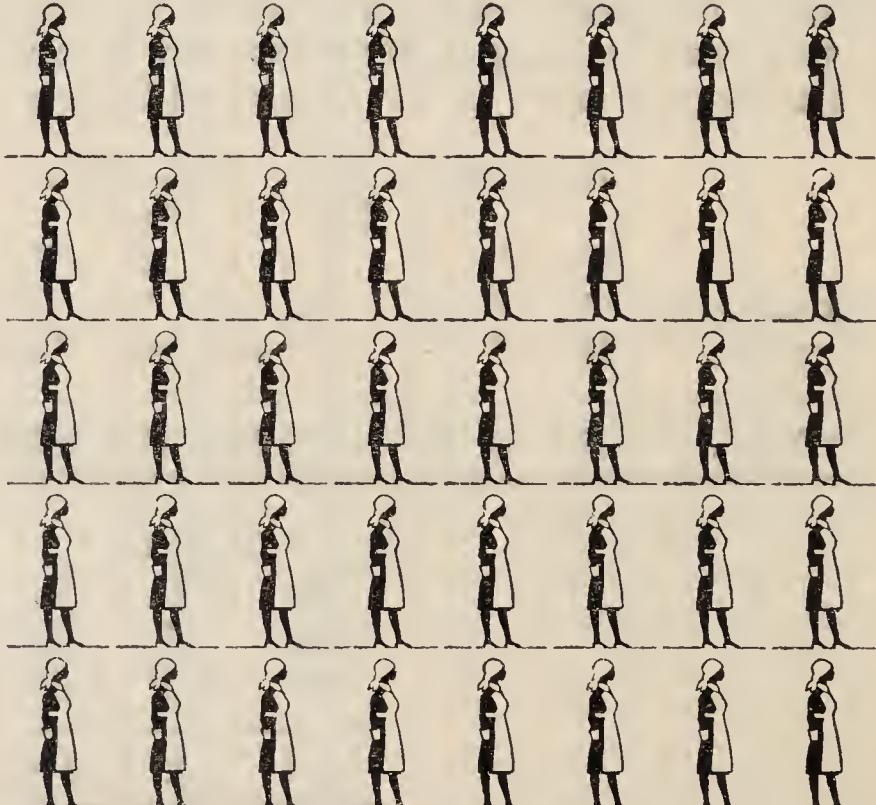
European Females



Non-Europ. Males
(excl. Mining Nats.)



Non-Eur. Females



These returns give an indication of the number of new cases occurring in the area during the year, though the figures are obviously under-estimated since many cases among mining Natives probably do not report sick, and many non-European cases, we know, at present do not come for treatment.

There is sufficient evidence, in these preliminary findings, to indicate that the venereal diseases — preventable and crippling diseases — are far too prevalent in our Town. The risk of spread of infection from domestically employed non-Europeans to European employers is admittedly small, since only a small proportion of those suffering with syphilis will be, at the moment, in a contagious state. The risk in gonorrhoea is greater. But, viewed solely from the standpoint of both venereal diseases as causal agents in the production of human wastage, of physical inefficiency and of expense to the community in hospitalization, there is ample evidence of the need for an extensive and persistent anti-venereal disease campaign in Benoni.

IX.—FOODSTUFFS

The supervision of the Town's food supply, its delivery, storage, preparation and sale, was continued most strictly during the year.

Kaffir eating houses continued to receive much attention, but with the opening of new premises in Wilstead Street which complied with all the requirements of the Department a new standard in the hygiene of Native eating houses was set for Benoni.

The **Municipal Abattoir** (page 67) continued its expansion. The approximate annual income figures for this branch of the Town's public health activities are of interest in showing the gradually increasing usefulness of the centre in which all the Town's meat supply is inspected and slaughtered:—

1935-1936	...	£7620
1936-1937	...	£9632
1937-1938	...	£9750
1938-1939	...	£9985

The Town's **Milk Supply** is gradually improving, but the shortage of staff makes it impossible for adequate inspection to be maintained of all milk coming to the public of Benoni. One Inspector is occupied in dealing with all foodstuffs in the area; it is not surprising that he has insufficient time to spare for the essential supervision of the large amount of milk consumed by our people, and especially by our children. The project which included Municipal pasteurization of all milk other than that carrying a special certificate, considered last year, has not come to fruition.

On the 30th of June, 1939, were licensed 29 Producers, 20 Producer-Distributors, and 17 Distributors.

X.—VERMIN CONTROL

Rodent Control (see page 72): work was continued as actively as in past years. Especial attention was given to the rat-proofing of new premises, to the destruction of the large rodent population in the Asiatic Section and Native Location, as well as the control of field rodents in the semi-rural and peri-urban areas.

Fly control proves steadily more effective and comparatively few flies were found in the Township proper. In the suburbs and on the outskirts of the Town the position was not so satisfactory. A very marked improvement was made on the premises of a dealer in manure by the carrying out of the Department's recommendation that all manure be buried in pits 10 feet deep, covered with sawdust, allowed to stand for a few days, burned from the edges inwards, covered with soil and allowed to stand for several months. The fly nuisance previously arising from this property has now disappeared.

Mosquito control included the spraying of potential breeding places on public property and the constant search for breeding places on private stands.

Bug control took up much of the time of one Inspector and it became necessary to circularise all house agents with the suggestion that all Native quarters should be fumigated with hydrocyanic acid gas at least once a year, preferably in late autumn. Nine private fumigators were licensed, and 753 dwellings were fumigated by them during the year.

The **control of termites** (ants) became a matter of public health interest when many householders in the Western Extension of the Township and in Northmead complained of extensive destruction of foundations, floors, etc., as the result of termite activity. Discussion with the Chief Entomologist, Union Division of Plant Industry, Pretoria, and through the Witwatersrand Public Health Consultative Committee, resulted in Dr. Naude agreeing to draw up a list of instructions to prevent termite infestation which would be attached to all building plans.

Important points brought out in these discussions included:

1. The possibility of efficiently destroying termite nests by the sulphur and arsenic method.
2. The necessity for the inspection of all sites, before the foundations are dug for any new building, to discover and to destroy termite life before building starts.
3. All foundation walls and piers to be of concrete or masonry laid in Portland cement (3:1) and their extension at all points at least 6 inches above the finished grade; all masonry or concrete foundation walls to extend at least as high as the top of any adjacent concrete, masonry, or tile slabs which are supported either by natural ground or by an earth fill.
4. A termite barrier to be constructed on the top of foundations and piers so as completely to cut off all access to termites from the ground to all untreated wood above the barrier. The barrier to

consist of non-corrosible metal, to project downwards over the edge of the foundations at an angle of 45° to the sides of the piers and foundations, the downward projecting part being at least 3" in width.

5. The provision of trapdoors in floors or openings in foundation walls so that sub-floor spaces may be accessible for periodic inspections. Every sub-floor ventilator to be screened with fine sieve gauze to prevent the entry of flying termites to the ground below the floors.

6. Floor joists to have a clearance of not less than 18 inches beneath them and the surface of the ground underneath, and such ground to be smoothed off.

7. All wood frames used in placing concrete, and all blocks and scraps of waste wood lying beneath floors to be removed, and no waste wood buried in any earth fill below stoeps, tiled floors, etc.

8. The efficiency, as a wood preservative, for wall plates and floor joists, of a mixture of 50% tar and 50% natalite.

9. The general inefficiency of a 6 inch layer of cyanide sand, even though a sub-layer of 2 inches of blue building lime is put down.

XI.—MATERNAL AND CHILD WELFARE

(Page 61).

The future of the manhood and womanhood of our country depends largely upon their healthy nurture in youth, from the time when they lie in the womb to the later days of childhood. Only when the foundations have been well and truly laid can we hope to achieve a sturdy and healthy people. The ante-natal, midwifery, infant welfare, and health visiting services of this Department aim at the provision of such healthy foundations for the future welfare of all Benoni citizens.

It is especially cheering, therefore, to note that the work done at the ante-natal and infant clinics has more than doubled during the year, in spite of the fact that they were, for the European clinics, housed in temporary and unsuitable quarters. The ante-natal clinics, closely linked with the district midwifery service provided by the Boksburg-Benoni Hospital Board, are gradually expanding in spite of the deep-rooted prejudice and suspicion found particularly among Natives in whom tribal custom and superstition still largely persist.

The Assistant Medical Officer of Health draws attention to the close relationship between venereal disease work and maternal and child welfare work among the urban non-European population, among whom the high rate of infantile mortality is in no small measure due primarily to syphilis and to some other inter-current infection secondarily, in spite of the fact that the death certificate generally reveals the mortality as due solely to enteritis, congenital debility, or broncho-pneumonia.

Reference is made on page 21 to the incidence of syphilis among non-Europeans attending at the ante-natal clinic.

The District Midwives (see page 64) attended 215 confinements in private houses during the year. No expectant Mother in Benoni, whatever her race, need now go without the services of a fully qualified Midwife and Doctor because she cannot afford to pay for such services.

The total of midwives registered for practice in Benoni on the 30th of June was 41. Of these, 36 were certificated (including 4 non-Europeans), and 5 uncertificated. The Health Visitors regularly inspected the bags of these midwives and kept in touch with them.

Committee discussed further the possibility of the establishment of a Nursery School in Benoni and had the advantage of meeting Dr. Ruth Arndt and Miss Webber of Pretoria in order to gain full information regarding such schools. The matter is still under consideration.

It was agreed, subject to the approval of the Union Native Affairs Department, to erect a creche in the vicinity of the Location clinic as a centre for the physical and moral protection of Native children up to the age of 2 years, while their parents are at work. The creche is intended to help to alleviate under-nourishment at the most important time in the lives of children, to assist them in the development of regular and hygienic habits, and especially to help in the reduction of the present high incidence of infantile mortality and sickness due to preventable causes.

XII.—NUTRITION

Continuing the studies recorded in the last Annual Report, a full census was made in September and November of *all* foodstuffs sold in Benoni over a period of one month. This very difficult task was concluded adequately as the result of the endeavours of Inspector Booysen and of the fine practical support which the food-sellers of the town gave to him.

The results of this census, which have already been quoted in nutrition reports elsewhere, have been published in the South African Journal of Medical Sciences (Vol. 4 No. 4) and in further reports to Council. The findings are intended primarily to provide a basis for scientifically sound attempts to guide the people's daily diet toward the adequate and well-balanced diet which is essential for health.

The salient point in the findings is that, when compared with a recognised standard adult diet adequate for health, the "average" Benoni adult consumption shows the following features.

As regards the European section of the population an increase in the daily consumption of milk and butter (for fats and vitamin D) and of milk and cheese (for calcium) is indicated; also among the adult members of the community, a decrease is indicated in the amount of animal protein consumed and a relative increase in the vegetable protein.

For the non-European population, to raise the "average" diet to the standard adequate for health, the following additions and alterations to the existing diet are indicated. The provision of adequate quantities of milk, fresh or sour ($\frac{1}{2}$ pint — adults, 1 pint — children, 2 pints — nursing and expectant mothers), to provide essential fats, protein, calcium, and vitamins A and D; of cheese (for fats and calcium). A doubling of the meat consumption, and the inclusion of eggs, fresh or dried, to provide a sufficiency of animal protein and of phosphorus. The increased consumption of vegetables such as potatoes and sweet potatoes, and the consumption of fresh fruits or of citrus juice throughout the year.

In effect, the European "average" daily consumption comes very near to the standard well-balanced diet. An excess of animal protein is eaten, and there is a shortage of fats and of vitamin D. The non-European "average" diet, on the other hand, not including mining Natives on rations, is quite inadequate, being deficient in fats, protein, calcium, phosphorus, and vitamins A and D.

The daily food intake analyses may be summarised as follows:

	Standard	"Average" European Diet	"Average" Non-Eur. Diet
Protein — Animal — gms.	...	59	23
Vegetable — gms.	...	40	43
Total — gms.	...	70-100	99
Fats — gms.	...	100	77
Carbohydrate — gms.	...	350-500	458
Calories	...	2400	2987
Calcium — mgms.	...	680-1000	608
Phosphorus — mgms.	...	1320	1363
Iron — mgms.	...	12-16	23
Vitamin "A"—Intern. Units.	...	4000-6000	5236
,, "B"—,,	...	100-150	370
,, "C"—mgms. Ascorbic Acid	25-60	82	65
,, "D"—Intern. Units.	...	500-3000	223
			19

The proposals made, for the consideration of Council, to improve the non-European daily diet included the following:—

Increased education about nutrition, particularly directed towards the practical demonstration of the minimum daily needs for health, the need to "eat little of much" in the daily diet, the best ways of buying and cooking essential foods, the absolute

importance of the "health insurance" foods such as the whole-grain cereals, milk, cheese, vegetables, and fruit. Such education to include visual demonstrations, to be given in schools, church classes, public gatherings, and in the home, and to be directed at the males as well as the females.

The practical encouragement by Council, through the provision of facilities in the Location, of communal buying and storage of foodstuffs by groups of families.

The sale, at cost price, of milk, cheese and orange juice at the Municipal Beer Hall.

The further encouragement of standholders to grow vegetables on their plots.

The weekly preparation and display in the Location of a list of local current prices of the commoner foodstuffs.

XIII.—HOTELS AND BOARDING HOUSES

18 licensed boarding houses were kept under supervision during the year, 15 of these being in the Township and 3 on mine properties; the latter catered only for table boarders. The general condition of the majority of these premises has much improved, following upon the written and verbal advices given by this Department to licencees, especially as regards facilities for food storage and preparation.

At the request of the Magistrate, the Department inspected and reported on the sanitary and hygienic condition of 8 hotels, 2 clubs, and 1 restaurant carrying a malt liquor licence. Various recommendations, mostly of a minor nature, regarding all premises save one were made to the Magistrate. The Liquor Licensing Board was able to accept these recommendations and to require that the various improvements suggested be carried out.

As regards the Grand Hotel, an adverse report was presented to the Magistrate and a request made that finality be reached without further delay regarding reconstruction. It is understood that a provisional licence was granted to the Hotel for 1939 only, and that the licensee was permitted to erect a new hotel in the vicinity.

XIV.—WATER SUPPLY

As previously reported, the major supply for this Town comes from the satisfactory supply provided by the Rand Water Board. Unsatisfactory wells in the semi-rural areas were dealt with as far as possible. Attention was drawn to the inadequacy — as regards family cleanliness — of the system of street stand pipes in the Native Location and Asiatic Section.

XV.—NIGHT SOIL AND REFUSE REMOVAL AND DISPOSAL

These services remained under the direct control of the Sanitary Manager's Department. The Town Engineer advises that, on the 30th of June 1939, 1990 stands within the Township had been connected to the main sewer, leaving only 27 stands still to be connected in this area.

XVI.—ROUTINE SANITARY WORK

On pages 65-66 will be found a summary of the routine work done by the Inspectors during the year — a sufficient indication of the varied and valuable control which these officials exert over the environment of the people of Benoni.

XVII.—HOSPITAL AND OUT- PATIENT SERVICES

Pending the completion of the new Public Health Block, with its ample out-patient and clinic accommodation for the European public, the Hospital Board continued to take advantage of the temporary quarters provided by Council at 36 Rothsay Street. An average of 160 European and 1196 non-European (at the Location Clinic) attendances (see page 64) each month was recorded. These figures compare favourably with previous returns, and indicate the steady increase in the out-patient facilities provided for Benoni residents.

In-patients (European and non-European) were catered for at the Boksburg-Benoni Hospital, and (European only) at the Kleinfontein Hospital, the Athlone Nursing Home and the Willowdene Nursing Home.

The Hospital's district midwifery service is referred to on page 64.

XVIII.—OTHER SERVICES

1. **Examination of Temporary European Employees.** During the year 69 employees were examined before starting work in a temporary capacity with the Municipality.

2. **Treatment of Sick Municipal Native Employees.** A total of 802 Natives received treatment during the year at the Compound Hospital, either as in-patients or out-patients. The Assistant Medical Officer of Health attended daily at the Compound for this purpose.

XIX.—STAFF

Medical Officer of Health: C. C. P. Anning, M.A., M.R.C.S., D.P.H.

Assistant Medical Officer of Health: G. W. Gale, M.Sc., M.B., Ch.B., D.P.H., D.T.M. & H. (up to 28th November, 1938). S. W. Adler, M.B., Ch.B., D.P.H., D.T.M. & H. (from 28th November 1938).

Health Inspectors: S. L. Chapman, Cert. R.S.I.; B. M. Booysen, Cert. R.S.I., Meat and other Foods; P. J. Howett, Cert. R.S.I.; H. E. Linton, Cert. R.S.I., Meat and other Foods, Tropical Hygiene; E. R. Lupton, Cert. R.S.I., Meat and other Foods; N. Youens, Cert. R.S.I., Meat and other Foods.

Learner Health Inspectors: W. B. Tite, Cert. R.S.I.; C. S. Pittendrigh; N. B. H. Veldsman, Cert. R.S.I., Meat and other Foods.

Vermin Officer: P. T. Engelbrecht.

Health Visitors: K. A. Forsyth, Cert. S.A. Med. Council (Gen. and Midwif.) Cert. R.S.I. (Health Inspectors), Cert. R.S.I. (Health Visitors and School Nursing); F. Fitschen, Cert. S.A. Medical Council (Gen. and Midwif.), Cert. R.S.I. (Health Visitors and School Nursing), (up to 1 July, 1938); M. P. Davies, Cert. S.A. Med. Council (Gen. and Midwif.), Cert. R.S.I. (Health Visitors and School Nursing), (from 15th July, 1938).

Clerical Staff:

Clerk: Miss K. N. Maddock.

Typiste: Miss W. M. Hansen.

Native Nurses: W. E. Majola, Cert. S.A. Med. Council (Midwif.); L. Sangoni (V.D. Nurse — from 2 May 1939), Cert. S.A. Med. Council (Midwif.).

Non-European Health Assistants: P. B. Mtimkulu, A. S. Vil-Nkomo, J. Louw (all with Native Health Assistant Certificate of Benoni Municipality).

Abattoir Superintendent: H. J. Davey, Cert. R.S.I., Meat and other Foods.

Meat Inspector: J. Selby.

Abattoir Mechanic: S. Mann.

Abattoir (Treasury) Clerk: A. Zybrands.

By-Product Attendant: J. A. Fourie.

Abattoir Cleaners: J. J. Swanepoel and F. Brandt.

Also — 2 Native Messengers (office); 6 Native Cleaners (Abattoir); 2 Natives (Abattoir — By-Products); 2 Natives (Abattoir-Boilers); 1 Native (Abattoir — Police); 7 Natives (Rodent Control).

During the year Council laid down a definite establishment for the Department, together with an amended salary scale for many officials.

XX.—GENERAL

1. Office Accommodation.

Before the end of the year the plans were completed for the erection of the Public Health Block on a site at the corner of Rothsay Street and Elston Avenue. The erection of these premises, which will include offices, clinics, lecture hall, etc., will be started early in the coming year.

2. School Medical Inspection.

The Chief Medical Inspector of Schools, Transvaal, reports that during the year ending on the 31st December, 1938, inspections were carried out in Benoni Schools by his Staff as follows:—

Routine Inspections by Med. Insp. of Schools — nil.

Special inspections by Med. Insp. of Schools — 7 schools visited; 1,304 children examined (846 boys, 458 girls).

Visits paid to Schools by School Nurse — 55.

Attention is drawn once again to the advantages which would result if the local school medical work could be brought under the immediate control of the Municipality. Adequate co-ordination could then be achieved of ante-natal, infant, pre-school, and school medical services — to the benefit of the individual children and of the health of the town as a whole.

3. Peri-Urban Areas.

Evidence was presented by a deputation from Council to the Urbanised Areas Administration Committee in Johannesburg on the 17th April, 1939. The desirability in the best interests of Public Health that peri-urban areas should come under some control was stressed, and the conditions presently obtaining in the areas adjacent to Benoni was described in detail. It was claimed that if the Provincial Council is to control local Government it must establish a central department to deal exhaustively with all matters which have any reference to or control of the affairs of local government administration, and that, for the peri-urban areas under consideration, a rural local authority with full health and sanitary powers should be established, Council is prepared to assist towards the successful functioning of such a rural local authority in the Magisterial District of Benoni by permitting its officials to render expert advice on application.

4. Municipal Ambulances.

The Superintendent, Fire Brigade, advises that during the year there were 1,641 calls, of which 298 were in connection with infectious disease cases, 195 street accidents, 89 industrial accidents, 202 assault cases. A total of 1,710 persons were conveyed in these calls, of whom 689 were Europeans and 1,021 non-Europeans.

5. Blood Transfusion Service.

An active branch of the Rand Blood Transfusion Service was formed in the Benoni-Boksburg area, and the Municipal Clinic in Rothsay Street was used for the testing of donors. 102 donors are on call, all duly tested. An efficient call system has been established. The voluntary workers, donors and officials have organised a most excellent service and their work, for the benefit of the people of Benoni, is greatly to be admired.

REPORT "B"

UPON THE HOUSING OF THE PEOPLE

Progress during the year was made along the lines of further surveys of housing conditions, the gradual clearing away of unsatisfactory dwellings by arrangement with owners and without bringing the Slums Act into force, and a considerable amount of building of new dwellings.

The general position in Benoni is that in the Eastern portion of the Township there remains a considerable number of over-crowded and unsatisfactory dwellings; in the semi-rural areas of the Municipal area a decreasing number of houses unfit for habitation; in the Location very many inadequate dwellings; and in the Asiatic Section a majority of rooms which are unfit for habitation.

Pending the erection of houses in the Location under the sub-economic scheme it has been impossible to clear up the warrens in the Asiatic Section in which Natives rent rooms from the owners. No progress has been made with a European sub-economic housing scheme in the absence of funds from the Central Housing Board.

1. New Dwellings Erected.

(a) Municipal Area (excluding Native Location).

Plans were finally approved by this Department for the erection of 177 dwellings (value £194,940), 3 blocks of flats (£18,350), 82 business and other premises (£91,675), and additions and alterations on 140 stands (£29,725). The Town Engineer has kindly supplied these figures. The total value of the building plans was £334,690, as compared with £400,325 in 1937-1938.

(b) Native Location.

20 brick semi-detached, and 2 detached, houses were completed as the first instalment of Council's re-housing plan in the Location. A comprehensive plan for the wider scheme was prepared and submitted to the Central Housing Board. Only a small proportion of the moneys asked for to put this scheme into effect was granted to Benoni, so the full re-housing scheme for Natives will be further delayed.

Meanwhile 27 wood and iron dwellings and 2 brick shops were erected by Natives, under the supervision of the Location Health Inspector, in the Native Location. On 12 stands 24 new rooms were constructed, 7 premises were extensively renovated, and 24 new earth closets erected.

In the Asiatic Section, 4 brick shops, 6 brick cottages, and 6 brick closets were erected.

2. Insanitary Dwellings dealt with.

(a) Township.

The following premises were demolished during the year — 1 brick house containing 6 rooms, 6 wood and iron (brick-lined) houses containing 30 rooms, 3 brick native rooms, 50 wood and iron native rooms, 11 wood and iron sheds, 3 wood and iron garages, and 1 wood and iron stable. Notices were served on owners to carry out various alterations and improvements on 38 stands.

(b) Semi-rural Areas.

Demolished were 4 houses containing 14 rooms, 7 brick native rooms, 15 raw brick native rooms, 69 wood and iron native rooms, 12 wood and iron sheds, 4 wood and iron garages, 3 wood and iron storerooms, and 1 wood and iron stable. Notices, dealing with 37 stands, were served upon owners calling for alterations and improvements.

(c) Native Location.

In the Native Section 74 rooms on 35 stands were demolished, and 6 rooms on 2 stands in the Asiatic Section.

3. Housing Surveys.

(a) Township.

The survey of all dwellings east of Voortrekker (Fort) Street, referred to in the last Annual Report, was completed. 314 stands, excluding purely business premises, were surveyed. They contained 2,718 rooms, of which 546 were living rooms, 1,219 bedrooms, 547 kitchens, 305 pantries, 336 bathrooms, 324 native rooms, and 441 other rooms (storerooms, etc.).

The occupants totalled:—

European	Adults	1,735
	Children	758
Native	Adults	331
	Children	26
Coloured	Adults	33
	Children	11
Indians	Adults	18
	Children	13

32 living rooms, 105 bedrooms, and 168 native rooms were listed for demolition. 11 living rooms, 38 bedrooms, and 21 native rooms were listed as unfit for habitation pending improvements.

Counting each child as half an adult, there is an average of 1.7 persons (excluding Natives) per bedroom. 105 bedrooms were listed for demolition, which will result in some 180 persons being turned out of their present dwellings. Allowing an average of about 4 persons to each family, approximately 45 families (European) would have to be rehoused. Of the Native rooms, more than one half were listed for demolition.

Arising out of the findings of this survey, enquiries were made regarding the income of, and rents paid by, families occupying the condemned dwellings. Among 24 European families (average size approximately 3 adults and 2 children) considered, it was found that the breadwinner in most instances had been living in Benoni long enough to be legitimately called a Benoni resident, and was (at the time of the survey) in fairly regular employment. In 7 families the average weekly income was above £6 a week; in 8 it was between £2 10s. and £6; in 8 it was below £2 10s. a week; and in 1 the income was not discovered. Rents paid by these families varied from £2 to £6 a month. No details were obtained for the remaining 21 families, but it can be assumed that the findings would not be different from those obtained for the 24 families.

Committee considered these records and made application for a sub-economic housing loan from the Central Housing Board. The application was, for this year, unsuccessful.

Until a loan can be obtained, and alternative accommodation provided for these Europeans living in rooms listed for demolition, action has been taken to deal only with such premises as are vacant. 25 rooms were demolished in this area during the year.

(b) Peri-Urban Areas.

To facilitate the preparation of evidence for presentation to the Commission set up to enquire into health conditions in areas adjacent to, but outside, Municipal areas, with the co-operation of the Magistrate and the District Surgeon, this Department completed a survey of the areas contiguous with the Benoni boundaries but not included in any Municipal area.

This peri-urban area totals some 40 square miles. The population, which is increasing, was found to total 2,397 Europeans, 6,400 mining Natives (at Modder East G.M.), 1,963 non-mining Natives, 124 Coloureds, and 85 Indians.

The European houses were found to be satisfactory, with some exceptions. Sanitary accommodation was generally unsatisfactory. The water supply was suitable in the few instances in which it was drawn from boreholes, but in most instances it was found to be drawn from wells inadequately constructed or protected from surface contamination. The Native dwellings, except for the 6,400 mining Natives, were very bad and sanitary accommodation for them was found to be almost non-existent; conditions for Natives were particularly bad on the various brick yards scattered over this area. Among the Native population was found a considerable number of unoccupied "squatters," as well as a number of males living, with their families, at the various brickyards and irregularly employed.

4. Summary.

The position in Benoni and its adjacent areas is as follows:—

(a) In the Township, and especially in the Eastern section, there is a number of dwellings which do not comply with the standards accepted as essential for the health of the occupants. To overcome this defect it will be necessary first to provide a sub-economic (European) housing scheme. Such a scheme must be delayed until Central Government is able to release the necessary funds.

(b) In the Western section of the Township, and in the suburbs of Westdene and of Northmead, the housing of Europeans and of their Native employees is generally most satisfactory. A large proportion of the residents in these areas are owner-occupiers of their premises.

(c) In the semi-rural areas, within the Municipal boundaries, control has now been obtained over new dwellings erected, but many existing living places — especially those occupied by Natives — are unsuitable. Meanwhile a majority of the European residents in this area is attempting to comply with modern requirements as regards hygiene and sanitation.

(d) In the peri-urban areas, outside the Municipal boundaries, European living conditions are similarly generally satisfactory, but non-European dwellings in these areas are almost all unsatisfactory. There is, at present, no adequate control over buildings or over sanitary services.

(e) On the Mining properties, considerable improvements have been made during the year.

(f) In the Native Location the residents are doing their best to meet, out of their own pockets, the improvements in their immediate environment required to increase their health which this Department has advised. Many of these dwellings are still quite unsuitable, in spite of their patching up, and no real advance in the housing of the Location population will be achieved until the wide scheme of re-housing approved by Council can be entered upon. This advance awaits only the provision of funds by the Central Housing Board.

(g) In the Asiatic Section conditions are, almost without exception, bad. They cannot be improved until the existing Native population is evacuated. This cannot be achieved until alternative accommodation is provided in the shape of new Native dwellings in the Location. This cannot be done until funds for a sub-economic housing scheme are made available.

METEOROLOGICAL RECORDS

STATION 8/1682: BENONI MUNICIPAL COMPOUND:
 ALTITUDE 5,400 FEET
 LAT. 26°11'S. LONG. 28°19'E.

(a) ATMOSPHERIC TEMPERATURE

	July	Aug	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Year
Mean Daily Maximum	61.6	66.3	72.3	76.3	77.7	75.4	76.2	74.4	71.7	71.1	66.9	61.9	71.3
Mean Daily Minimum	37.9	40.1	44.0	52.9	53.9	57.0	56.1	59.7	52.7	45.6	42.4	35.7	48.2
Mean Daily Range ...	23.7	26.2	28.3	23.4	23.8	18.4	20.1	14.7	19.0	25.5	24.5	26.2	23.1
Greatest Daily Range	31.0	39.7	33.3	32.0	32.1	25.8	28.6	22.8	34.0	33.0	35.2	32.5	39.7
Least Daily Range ...	13.2	13.8	13.6	11.3	11.5	5.6	9.4	5.8	1.8	17.0	12.0	16.3	1.8
Absolute Maximum	68.0	77.2	82.2	85.0	89.0	83.2	85.0	80.5	78.2	75.8	76.0	69.2	89.0
Absolute Minimum ...	33.5	30.6	32.5	44.0	36.0	53.0	49.1	55.5	37.0	29.9	35.0	30.0	29.9
Absolute Range ...	34.5	46.6	49.7	41.0	53.0	30.2	35.9	25.0	41.2	45.9	41.0	39.2	59.1

(b) RAINFALL, HUMIDITY, SUNSHINE, CLOUDINESS AND WIND

	July	Aug	Sep.	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Year
Rainfall: Total Inches	0.25	0.33	0.64	2.20	1.12	8.03	2.71	6.20	3.14	0.15	1.72	0.00	26.49
No. of Rainy Days ...	3	1	3	13	9	18	11	15	10	3	8	0	94
Mean Daily Relative Humidity (%) ...	74.8	73.4	60.4	70.5	60.9	79.4	75.8	85.4	81	68	73.1	73.2	73
Cloudiness: Daily Average (Tenths)	4	2	1	5	3.7	7	5.2	8	5.5	2.6	3.6	1	4
Sunshine:													
Duration in Hours	252	286	294	248	279	209	240	130	180	216	238	243	2815
Hours per day ...	8.5	9.2	9.8	8.0	9.3	6.7	7.75	4.7	5.8	7.2	7.7	8.1	7.7
Wind:													
From N. (Days)	5	12	17	17	20	5	11	5	2	11	1	1	107
N.E. "	4	3	1	3	2	12	4	9	3	5	9	8	63
E. "	3	5	3	0	0	0	7	4	10	2	4	2	40
S.E. "	2	1	0	3	0	0	0	0	2	0	1	0	9
S. "	0	0	0	0	0	0	0	0	0	0	1	1	2
S.W. "	0	0	0	0	0	0	0	0	0	0	0	0	0
W. "	1	0	3	1	0	0	0	0	0	0	2	0	7
N.W. "	1	1	2	0	4	0	2	1	1	0	2	0	14
Calm Days	15	9	4	7	4	14	7	9	13	12	11	18	123

POPULATION: IN DISTRICTS

(Estimated on Census Returns)

	EUROPEAN			MINING NAT.			NON-MINING NATIVES			COLOURED			INDIAN			ALL RACES				
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.		
Township ...	9,011	8,749	17,760	—	—	—	1,156	4,791	157	156	13	13	12,816	10,081	22,877					
Location ...	4	—	4	615	615	1,293	6,519	12,688	620	580	1,200	534	445	979	7,327	7,544	14,871			
Semi-Rural Areas	678	—	—	—	—	—	6,169	969	693	50	50	17	12	29	1,714	1,370	3,084			
(A) ...	9,693	9,364	19,057	—	—	—	10,773	8,368	19,141	827	786	1,613	564	457	1,021	21,857	18,975	40,832		
New Kleinfontein G.M. ...	294	256	550	5,492	4,65	402	867	1	3	4	4	1	5	6,256	6,662	6,918				
Van Ryn Estates G.M. ...	204	157	361	3,735	206	134	340	15	15	30	12	1	15	4,172	309	4,481				
Modder B. G.M. ...	621	353	974	4,532	501	423	924	60	42	102	1	1	2	5,715	819	6,534				
Modder Deep G.M. ...	198	145	343	2,458	278	85	363	3	3	6	—	—	—	2,937	233	3,170				
Modder East G.M. ...	222	148	370	—	74	55	129	—	—	—	—	—	—	296	203	499				
New Modder G.M. ...	581	452	1,033	9,945	385	136	521	124	121	245	35	17	52	11,070	726	11,796				
Van Ryn Deep G.M. ...	285	227	512	6,116	723	192	915	—	—	3	2	2	5	7,127	421	7,548				
(B) ...	2,405	1,738	4,143	32,278	2,632	1,427	4,059	203	184	387	55	24	79	37,573	3,373	40,946				
TOTAL ...	12,098	11,102	23,200	32,278	13,405	9,795	23,200	1,030	970	2,000	619	481	1,100	59,430	22,348	31,778				

POPULATION

(Estimated on Census Returns)

							MALE	FEMALE	TOTAL
EUROPEAN							12,098	11,102	23,200
MINING NATIVES -- In Mine Compounds							32,278	—	32,278
NON-MINING NATIVES -- On Mine Properties							2,632	1,427	4,059
In Locations, etc.							10,773	8,368	19,141
Total							13,405	9,795	23,200
COLOURED							1,030	970	2,000
INDIAN							619	481	1,100
TOTAL: NON-EUROPEAN							47,332	11,246	58,578
TOTAL: ALL RACES							59,430	22,348	81,778

BIRTHS

(a) TOTAL BIRTHS IN MONTHS

	EURO-PEAN			NON-M. NATIVES			COLOURED			INDIAN			TOTAL		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
July ...	25	22	47	17	15	32	6	4	10	2	3	5	50	44	94
August ...	31	18	49	18	23	41	4	6	10	1	0	1	54	47	101
September ...	28	37	65	13	14	27	5	2	7	3	4	7	49	57	106
October ...	22	17	39	19	5	24	1	6	7	4	0	4	46	28	74
November ...	24	25	49	28	19	47	3	4	7	0	1	1	55	49	104
December ...	20	14	34	12	16	28	1	3	4	3	2	5	36	35	71
January ...	26	21	47	11	9	20	6	2	8	3	1	4	46	33	79
February ...	24	23	47	18	13	31	5	2	7	1	6	7	48	44	92
March ...	19	23	42	12	15	27	5	5	10	1	5	6	37	48	85
April ...	29	14	43	17	7	24	1	4	5	1	2	3	48	27	75
May ...	23	27	50	6	18	24	3	1	4	0	1	1	32	47	79
June ...	26	15	41	8	15	23	10	2	12	1	3	4	45	35	80
TOTAL	297	256	553	179	169	348	50	41	91	20	28	48	546	494	1,040

(b) TOTAL BIRTHS IN DISTRICTS

	EURO-PEAN			NON-M. NAT.			COL-OURED			INDIAN			TOTAL		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Township	226	215	441	6	4	10	5	2	7	1	0	1	238	221	459
Location	—	—	—	160	157	317	34	33	67	13	26	39	207	216	423
Semi-Rural Areas	43	16	59	1	0	1	1	0	1	3	1	4	48	17	65
(A)	269	231	500	167	161	328	40	35	75	17	27	44	493	454	947
New Kleinfontein	6	4	10	4	1	5	1	0	1	0	0	0	11	5	16
Van Ryn Estates	1	1	2	1	1	2	0	0	0	1	1	2	3	3	6
Modder B.	8	8	16	6	4	10	3	1	4	1	0	1	18	13	31
Modder Deep	4	0	4	0	1	1	0	0	0	0	0	0	4	1	5
Modder East	4	3	7	0	0	0	0	0	0	0	0	0	4	3	7
New Modder	4	9	13	0	1	1	6	5	11	1	0	1	11	15	26
Van Ryn Deep	1	0	1	1	0	1	0	0	0	0	0	0	2	0	2
(B)	28	25	53	12	8	20	10	6	16	3	1	4	53	40	93
TOTAL	297	256	553	179	169	348	50	41	91	20	28	48	546	494	1,040

(c) TOTAL ILLEGITIMATE BIRTHS

	EUROPEAN	NATIVE	COLOURED	INDIAN	TOTAL
Male ...	5	42	14	2	63
Female ...	6	49	11	0	66
TOTAL ...	11	91	25	2	129

(d) BIRTH RATES, Etc.

	BIRTH RATES		ILLEGITIMACY RATES (% illeg. to Total Births)	MASCULINITY RATES (Males: Females)
	(Births per 1,000 Pop.)	(Births per 1,000 women 15-44 years)		
European ...	23.84	95.2	1.99	116:100
Non-European (*)	18.52	78.5	24.2	105:100
Natives — Non. M.	(15.0)	(62.6)	26.2	106:100
Coloured ...	45.5	206.8	27.5	122:100
Indian ...	43.6	237.6	4.2	71:100
All Races (*) ...	21.01	86.7	12.4	111:100

(*) Excluding Mining Natives.

DEATHS

(a) TOTAL IN MONTHS

	EURO-PEAN			MIN. NAT			NON-M. NATS.			COL- OURED			INDIAN			TOTAL		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
July ...	14	7	21	19	15	13	28	2	1	3	6	2	8	56	23	79		
August ...	16	8	24	18	20	5	25	3	1	4	1	0	1	58	14	72		
September ...	12	10	22	15	20	14	34	2	2	4	1	1	2	50	27	77		
October ...	9	7	16	13	22	21	43	3	2	5	0	0	0	47	30	77		
November ...	7	3	10	13	30	16	46	1	4	5	3	1	4	54	24	78		
December ...	7	4	11	9	39	29	68	5	1	6	3	1	4	63	35	98		
January ...	4	5	9	17	16	16	32	1	1	2	0	2	2	38	24	62		
February ...	9	5	14	13	16	16	32	1	1	2	4	0	4	43	22	65		
March ...	5	7	12	18	17	15	32	2	0	2	2	0	2	44	22	66		
April ...	6	4	10	11	22	23	45	1	2	3	0	1	1	40	30	70		
May ...	13	9	22	4	21	21	42	2	1	3	0	0	0	40	31	71		
June ...	5	5	10	4	13	16	29	2	1	3	1	0	1	25	22	47		
TOTAL ...	107	74	181	154	251	205	456	25	17	42	21	8	29	558	304	862		

(b) DEATH RATES

(Deaths per 1,000 population)

		MALES	FEMALES	TOTAL
EUROPEAN	...	8.77	6.73	7.80
NATIVE — MINES	...	4.77	—	4.77
NATIVE — NON-MINES	...	18.73	20.92	19.61
COLOURED	...	24.27	17.53	21.00
INDIAN	...	33.92	16.63	26.41
ALL NON-EUROPEAN	...	9.53	20.44	11.62
ALL RACES	...	9.39	13.60	10.54

(c) TOTAL IN AGE GROUPS

	EURO-PEAN			MIN. NAT.			NON-M. NATS.			COL- OURED			INDIAN			TOTAL			
	M.	F.	T.	M.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0 ...	15	12	27					107	96	203	10	6	16	7	4	11	139	118	257
1 ...	3	1	4					29	29	58	1	3	4	3	1	4	36	34	70
2 ...	0	1	1					13	10	23	1	0	1	0	1	1	14	11	25
3 ...	0	1	1					3	2	5				0	1	1	3	4	7
4 ...	1	0	1					1	2	3							2	2	4
5-9	1	1	2					1	7	8	1	1	2	1	0	1	3	9	12
10-14	0	2	2					4	5	9	1	1	2	1	0	1	6	8	14
15-19	4	1	5	5				4	5	9	0	1	1	2	0	2	15	7	22
20-24	3	1	4	23				6	7	13	0	2	2	1	0	1	33	10	43
25-29	1	5	6	44				10	6	16	1	0	1	0	1	1	56	12	68
30-34	7	1	8	30				18	5	23	1	0	1	1	0	1	57	6	63
35-39	3	3	6	28				12	7	19	2	0	2				45	10	55
40-44	2	1	3	12				12	5	17	1	0	1	1	0	1	27	6	33
45-49	9	3	12	8				12	3	15	1	0	1	1	0	1	31	6	37
50-54	10	3	13	4				3	2	5	3	0	3				20	5	25
55-59	8	8	16					4	2	6							12	10	22
60-64	18	7	25					4	2	6	1	2	3	2	1	3	25	12	37
65-69	9	5	14					2	1	3	1	0	1	1	0	1	13	6	19
70-74	6	10	16					1	5	6	0	1	1	1	0	1	8	16	24
75-79	4	4	8					2	2	4							6	6	12
80-up	3	4	7					3	2	5				1	0	1	7	6	13
TOTAL	107	74	181	154	251	205	456	25	17	42	21	8	29	558	304	862			

(d) TOTAL IN DISTRICTS

	EURO-PEAN			NATIVE			COL- OURED			INDIAN			TOTAL		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Township	72	56	128	12	5	17	1	2	3	0	1	1	85	64	149
Location				200	178	378	22	12	34	18	7	25	240	197	437
Semi-Rural Areas	11	7	18	22	5	27							33	12	45
(A)	83	63	146	234	188	422	23	14	37	18	8	26	358	273	631
New Kleinfontein	1	1	2	45	12	57							46	13	59
Van Ryn Estates				20	1	21							20	1	21
Modder B.	8	3	11	18	3	21	2	1	3	1	0	1	29	7	36
Modder Deep	3	1	4	13	0	13							16	1	17
Modder East	1	3	4	0	1	1							1	4	5
New Modder	10	3	13	46	0	46	0	2	2	1	0	1	57	5	62
Van Ryn Deep	1	0	1	29	0	29				1	0	1	31	0	31
(B)	24	11	35	171	17	188	2	3	5	3	0	3	20	031	231
TOTAL	107	74	181	405	205	610	25	17	42	21	8	29	558	304	862

(e) DETAILED CAUSES OF DEATH

	European			Min. Nat.			Non-M. Nats.			Coloured			Indian			All Races			
	M.	F.	T.		M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.			
I. Infectious Diseases																			
001 Enteric Fever	...				3			5	2	7	1	1	2	1	0	1	10	3	13
008 Measles	...					1	0	1							1	0	1		1
010 Whooping Cough	...				0	2	2	1	1	2					1	3	4		
011 Diphtheria	...	1	0	1											1	0	1		
012 Influenza (Lungs)	...	2	1	3	9			0	1	1					11	2	13		
013 Influenza (Not Lungs)	...				2			5	0	5					2	0	2		
015 Amoebic Dysentery	...				2										7	0	7		
022 Erysipelas	...				1										1	0	1		
025 C. Spinal Meningitis	...	1	1	2	2			0	1	1					3	2	5		
030 Tuberculosis—Lungs	...	4	3	7	7			11	9	20	4	2	6		26	14	40		
031 Tuberculosis—Nerves	...	1	0	1											1	0	1		
032 Tuberculosis—Intestines	...							1	2	3					1	3	4		
039 Disseminated T.B.	...				1										1	0	1		
042 Syphilis	...	0	1	1	2			15	7	22					17	8	25		
045 Septicaemia	...				2			1	0	1					3	0	3		
056 Bilharziosis	...				1										1	0	1		
TOTAL: I	...	9	6	15	32			39	24	63	6	4	10	1	1	2	87	35	122
II. Malignant Tumours																			
101 Cancer: Digest. Orgs.	4	1	5	1				1	2	3	1	0	1			7	3	10	
103 " Uterus	0	2	2												0	2	2		
104 " Ovary	0	1	1												0	1	1		
106 " Breast	0	2	2												0	2	2		
108 " Lip	0	1	1												0	1	1		
109 " Other Organs	1	1	2					1	0	1					2	1	3		
120 Non-Malignant	...							0	1	1					0	1	1		
122 Undetermined	...	1	0	1											1	0	1		
Total: II	...	6	8	14	1			2	3	5	1	0	1	0	0	0	10	11	21
III. Rheumatism, etc.																			
149 Rheumatic Fever	...	0	1	1											0	1	1		
150 Rheumatism, Heart	...	1	0	1				3	1	4					4	1	5		
153 Diabetes	...	1	3	4				1	1	2					3	4	7		
155 Beri-Beri	...							0	1	1					0	1	1		
TOTAL: III	...	2	4	6	0			4	3	7	0	0	0	1	0	1	7	7	14
IV. Diseases of Blood																			
204 Leucaemia	...				1			0	1	1						1	1	2	
TOTAL: IV	...	0	0	0	1			0	1	1	0	0	0	0	0	1	1	2	
VI. Nervous System																			
301 Meningitis	...	1	0	1	5						1	0	1			7	0	7	
304 Cerebral Haem.	...	1	2	3	1										2	2	4		
305 Cerebral Embolism	...	1	1	2				1	0	1					2	1	3		
310 Epilepsy	...	0	1	1				1	1	2	1	0	1		2	2	4		
313 Cerebral Abscess	...				1			1	2	3					1	0	1		
315 Mastoiditis	...														1	2	3		
TOTAL: VI.	...	3	4	7	7			3	3	6	2	0	2	0	0	0	15	7	22

Detailed Causes of Death—Continued

	European			Min. Nat.			Non-M. Nats.			Coloured			Indian			All Races		
							Males	M.	F.	T.	M	F.	T.	M	F.	T.	M	F.	T.
VII. Circulatory System																		
350 Pericarditis		5											5	0	5
351 Ac. Endocarditis	...	0	1	1	1		2	1	3							3	2	5
352 Valv. Dis. of Heart	...	1	3	4			1	5	6	0	1	1				2	9	11
353 Ac. Myocarditis	...	1	1	2			1	0	1	0	1					3	1	4
354 Fatty Heart	...	1	1	2												1	1	2
355 Other Myocarditis	...	8	4	12	1		4	3	7							13	7	20
356 Angina Pectoris	...	8	4	12	2		1	0	1							11	4	15
357 Other Dis. of Heart	...	0	2	2			2	2	4				3	0	3	5	4	9
358 Aneurism	...				1		1	0	1							2	0	2
359 Arterio-Sclerosis	...	2	1	3												2	1	3
365 Abn. Blood Pressure	...	1	0	1												1	0	1
TOTAL: VII	...	22	17	39	10		12	11	23	1	1	2	3	0	3	48	29	77
VIII. Respiratory System																		
401 Laryngitis	...	0	2	2				1	0	1						1	0	1
402 Acute Bronchitis	...	3	0	3			9	7	16							9	10	19
403 Chronic Bronchitis	...	10	9	19			2	2	4							1	6	8
404 Broncho-Pneumonia	...	8	1	9	28		58	63	121	4	4	8	4	4	8	76	80	156
405 Lobar Pneumonia	...	1	1	2			20	7	27	2	1	3	1	0	1	59	9	68
406 Pneumonia	...				1		4	3	7	1	1	1	1	0	1	6	5	11
407 Empyema	...						1	1	2							1	1	2
408 Other Pleurisy	...				1											1	0	1
409 Pulmonary Congestion	...	0	1	1			2	0	2	0	1	1				0	1	1
410 Asthma	...	2	1	3												4	2	6
411 Pulm. Emphysema	...	1	0	1			1									1	0	1
412 Other Respiratory Dis.																1	0	1
413 Silicosis (No T. B.)	...	6	0	6												6	0	6
414 Silicosis (with T.B.)	...	2	0	2												2	0	2
TOTAL: VIII	...	33	15	48	30		97	83	180	6	7	13	7	5	12	173	110	283
IX. Digestive System																		
451 Tonsilitis	...									1	0	1				1	0	1
453 Gastric Ulcer	...						1	0	1							1	0	1
456 Enteritis (Under 2)	...	1	0	1			39	41	80	2	1	3	1	1	2	43	43	86
457 Enteritis (2 and over)	...				3	3	6									3	3	6
458 Appendicitis	...	1	4	5												1	4	5
459 Hernia	...				1											1	0	1
460 Intestinal Obstruction	...	0	1	1			2	1	3	1	0	1				4	2	6
461 Oth. Dis. Intestines	...	1	0	1												1	0	1
464 Ac. Yellow Atrophy	...				1					0	1	1				1	1	2
467 Cholangitis	...						0	1	1							0	1	1
469 Peritonitis	...	1	0	1			0	1	1						1	0	1	3
TOTAL: IX	...	4	5	9	3		45	47	92	4	2	6	2	1	3	58	55	113
X. Kidneys, etc.																		
500 Acute Nephritis	...						2	0	2	0	1	1				2	1	3
501 Chronic Nephritis	...	6	2	8	2		1	1	2	1	1	2				10	4	14
507 Prostatitis	...						1	0	1							1	0	1
510 Salpingitis	...						0	1	1							0	1	1
TOTAL: X	...	6	2	8	2		4	2	6	1	2	3	0	0	0	13	6	19
XI. Diseases of Pregnancy																		
550 Post Abortive Sepsis	...	0	1	1			0	1	1							0	2	2
553 Other Accidents	...						0	1	1							0	1	1
554 Puerp. Haemorrhage	...						0	1	1							0	1	1
555 Puerp. Sepsis	...						0	1	1							0	1	1
557 Other Toxaemia	...						0	1	1							0	1	1
559 Obstructed Labour	...						0	2	2							0	2	2
TOTAL: XI	...	0	1	1	0		0	7	7	0	0	0	0	0	0	0	8	8

Detailed Causes of Death—Continued

	European			Min. Nat.			Non-M. Nats.			Coloured			Indian			All Races		
	M.	F.	T.	Males	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
XII. Disease of Bones																		
650 Osteomyelitis ...					1	0	1									1	0	1
TOTAL: XII ...	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	1
XIV. Cong. Malformations																		
700 Hydrocephalus ...					0	1	1								0	1	1	
702 Congenital Heart ...	1	0	1		1	0	1							2	0	2		
703 Other Cong. Malform.	0	1	1											0	1	1		
TOTAL: XIV ...	1	1	2	0	1	1	2	0	0	0	0	0	0	2	2	2	4	
XV. Dis. of Early Infancy																		
750 Congenital Debility ...	1	0	1		6	3	9	1	0	1				8	3	11		
751 Premature Birth ...	4	3	7		13	7	20	2	0	2	2	1	3	21	11	32		
752 Injury at Birth ...					2	1	3							2	1	3		
753 Other Infant Diseases	4	2	6		6	4	10	1	0	1	1	0	1	12	6	18		
TOTAL: XV ...	9	5	14	0	27	15	42	4	0	4	3	1	4	43	21	64		
XVI. Old Age																		
800 Old Age ...	1	2	3											1	0	1	2	2
TOTAL: XVI ...	1	2	3	0	0	0	0	0	0	0	1	0	1	2	2	2	4	
XVII. Violence																		
850 Suicide: Poisoning ...	1	0	1											1	0	1		
852 " Hanging ...	2	0	2		2	0	2							4	0	4		
854 " Firearms ...	1	0	1											1	0	1		
861 Homicide: Knives ...				1	0	1	1							1	1	2		
862 " Other ...					1	0	1							1	0	1		
865 Accident: Gassing ...				3										3	0	3		
868 " Burns ...					3	3	6							3	3	6		
869 " Suffocation ...					1	0	1							1	0	1		
870 " Drowning ...	2	0	2	2				1	0	1				4	0	4		
872 " Injury Knives				1										1	0	1		
873 Accid. Injury in Mines	1	0	1	57										58	0	58		
877 Motor Accidents ...	2	2	4	4				4	0	4			1	0	1	11	2	13
878 Motor Cycle Accidents	2	0	2											2	0	2		
882 Accid. Crushing ...					2	0	2	0	1	1				2	1	3		
883 Accid. Fall ...	0	2	2		1	0	1							1	2	3		
888 Hunger ...					1	0	1							1	0	1		
TOTAL: XVII ...	11	4	15	68	15	4	19	0	1	1	1	0	1	95	9	104		
XVIII. Ill-Defined																		
951 Ill-Defined ...					1	1	2							2	0	2	3	1
TOTAL: XVIII ...	0	0	0	0	1	1	2	0	0	0	2	0	2	3	1	4		
GRAND TOTAL ...	107	74	181	154	251	205	456	25	17	42	21	8	29	558	304	862		

(f) DEATH RATES: VARIOUS CAUSES

(According to Short List of Census Office)

		All Races	Eur.	Min.	Natives Non-M.	Col.	Ind.	All Non Eur.	1931-36 All Races
1. Enteric Fever	...	0.16	0.00	0.09	0.30	1.00	0.90	0.22	(0.79)
2. Typhus	...	0.00	—	—	—	—	—	—	(0.00)
3. Smallpox	...	0.00	—	—	—	—	—	—	(0.00)
4. Measles	...	0.01	—	—	0.04	—	—	0.02	(0.06)
5. Scarlet Fever	...	0.00	—	—	—	—	—	—	(0.01)
6. Whooping Cough	...	0.05	—	—	0.09	1.00	—	0.07	(0.23)
7. Diphtheria...	...	0.01	0.04	—	—	—	—	—	(0.04)
8. Influenza	...	0.18	0.13	0.34	0.04	—	—	0.20	(0.38)
9. Dysentery	...	0.09	—	0.06	0.21	—	—	0.12	(0.26)
10. Spinal Meningitis	...	0.06	0.09	0.06	0.04	0.00	0.00	0.05	(0.013)
11. Pulmonary T.B.	...	0.45	0.30	0.22	0.86	3.00	—	0.56	(0.72)
12. T.B. Meningitis	...	0.01	0.04	—	—	—	—	—	(0.02)
13. Other Tuberculosis	...	0.04	—	—	0.13	—	—	0.05	(0.06)
14. Leprosy	...	0.00	—	—	—	—	—	—	(0.00)
15. Syphilis	...	0.31	0.04	0.06	0.95	—	—	0.41	(0.17)
16. Malaria	...	0.00	—	—	—	—	—	—	(0.01)
17. Cancer	...	0.26	0.60	0.03	0.22	0.50	0.00	0.12	(0.28)
18. Cerebral Haem. (304-305)	...	0.05	0.13	0.03	—	—	—	0.02	(0.19)
19. Heart Dis. (350-357)	...	0.87	1.51	0.28	0.95	1.00	2.73	0.61	(0.91)
20. Bronchitis	...	0.33	0.21	—	0.86	—	1.82	0.37	(0.59)
21. Pneumonia	...	2.87	1.29	0.87	6.68	6.00	9.09	3.48	(3.47)
22. Silicosis (no T.B.)	...	0.07	0.26	—	—	—	—	—	(0.12)
23. Silicosis (with T.B.)	...	0.02	0.09	—	—	—	—	—	(0.03)
24. Other Respiratory Diseases	...	0.16	0.21	0.06	0.21	0.50	—	0.14	(0.13)
25. Ulcer, Stomach or Duod.	...	0.01	—	—	0.04	—	—	0.02	(0.001)
26. Diarr. and Enteritis (und 2)	...	1.05	0.04	0.00	3.45	1.50	1.82	1.45	(2.57)
27. Appendicitis	...	0.06	0.21	—	—	—	—	—	(0.08)
28. Cirrhosis of Liver	...	0.00	—	—	—	—	—	—	(0.04)
29. Nephritis	...	0.21	0.34	0.06	0.17	1.50	—	0.15	(0.20)
30. Puerperal Sepsis	...	0.01	—	—	0.04	—	—	0.02	(0.09)
31. Oth. Acc. and Dis. of Preg.	...	0.09	0.04	—	0.26	—	—	0.10	(0.07)
32. Congenital Malformations	...	0.05	0.09	—	0.09	—	—	0.03	(0.03)
33. Dis. of early infancy	...	0.78	0.60	—	1.85	2.00	3.64	0.85	(1.15)
34. Suicide	...	0.07	0.17	0.00	0.09	0.00	0.00	0.03	(0.04)
35. Mine Accidents	...	0.70	0.04	1.73	0.00	0.00	0.00	0.96	(0.74)
Road Accidents	...	0.18	0.26	0.12	0.17	0.00	0.91	0.15	(0.17)
Other Violent Deaths	...	0.32	0.17	0.25	0.56	0.50	0.00	0.38	(0.26)
36. Other Defined Causes	...	0.92	0.86	0.46	1.29	2.50	3.64	0.92	(1.66)
37. Ill-defined or Unknown	...	0.05	—	—	0.09	—	1.82	0.07	(0.04)
ALL CAUSES	...	10.54	7.80	4.77	19.61	21.00	26.41	11.62	(15.74)

INFANTILE MORTALITY

(a) TOTAL INFANTILE DEATHS IN DISTRICTS

	EURO-PEAN			NATIVE			COL-oured			INDIAN			ALL RACES		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Township	12	10	22	7	2	9	1	0	1	6	4	10	20	12	32
Location				82	81	163	9	5	14	6	4	10	97	90	187
Semi-Rural Areas	2	2	4	7	1	8							9	3	12
(A)	14	12	26	96	84	180	10	5	15	6	4	10	126	105	231
New Kleinfontein				8	8	16							8	8	16
Van Ryn Estates				1	0	1	2	3	5				1	0	1
Modder B.	1	0	1							1	0	1	4	3	7
Modder Deep				0	1	1							0	0	0
Modder East							0	1	1				0	1	1
New Modder													0	1	1
Van Ryn Deep													0	0	0
(B)	1	0	1	11	12	23	0	1	1	1	0	1	13	13	26
TOTAL	15	12	27	107	96	203	10	6	16	7	4	11	139	118	257

(b) CAUSES OF INFANTILE DEATH

	EURO-PEAN			NATIVE			COL-oured			INDIAN			ALL RACES		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
010 Whooping Cough ...							1	0	1				1	0	1
031 T.B. Meningitis ...	1	0	1										1	0	1
042 Syphilis				9	3	12							9	3	12
301 Meningitis				0	1	1				1	0	1	1	0	1
315 Mastoiditis													0	1	1
357 Dis. of Heart				1	0	1							1	0	1
401 Laryngitis				1	0	1							1	0	1
402 Bronchitis	0	2	2	6	5	11				2	3	5	6	7	13
404 Br. Pneumonia ...	3	4	7	33	39	72				1	2	3	39	48	87
405 Lobar Pneumonia ...				0	5	5	1	1	2				1	6	7
406 Pneumonia				1	1	2	0	1	1	1	0	1	2	2	4
456 Enteritis	1	0	1	29	25	54	2	1	3	1	1	2	33	27	60
460 Intest. Obstruction ...				0	1	1	1	1					0	1	1
702 Cong. Malf'n. Heart ...	1	0	1	1	0	1							2	0	2
703 Other Malformations ...	0	1	1										0	1	1
750 Cong. Debility	1	0	1	6	3	9							7	3	10
751 Prematurity	4	3	7	13	7	20	2	0	2	2	1	3	21	11	32
752 Injury at Birth				2	1	3							2	1	3
753 Atelectasis	3	0	3	0	1	1							3	1	4
Cereb. Haem.	1	2	3				3	1	4				1	2	3
Umbil. Haem.							3	0	3	1	0	1	4	0	4
Asphyx. Neonat'm. ...							0	1	1				0	1	1
Convulsions							0	1	1				0	1	1
Distress—Diff. Lab. ...							0	1	1				0	1	1
951 Undefined				0	1	1							0	1	1
TOTAL	15	12	27	107	96	203	10	6	16	7	4	11	139	118	257

(c) DEATHS IN CERTAIN AGE GROUPS

	EURO-PEAN			NATIVE			COL-oured			INDIAN			ALL RACES		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1st day	2	4	6	14	4	18	2	0	2	2	0	2	20	8	28
Rest of 1st week	5	2	7	11	4	15							16	6	22
Rest of 1st month	4	2	6	15	12	27	3	0	3	1	1	2	23	15	38
2nd to 6th months (incl.)	1	3	4	49	44	93	3	4	7	1	1	2	54	52	106
7th to 12th months (incl.)	3	1	4	18	32	50	2	2	4	3	2	5	26	37	63
TOTAL	15	12	27	107	96	203	10	6	16	7	4	11	139	118	257

(d) INFANTILE MORTALITY RATES

EUROPEAN:	Males	...	...	...	...	...	50.5	
	Females	...	...	...	...	...	46.8	48.8
NATIVE:	Males	...	...	...	...	...	(600)	
	Females	...	...	...	...	...	(568)	*
COLOURED:	Males	...	...	...	...	...	200	
	Females	...	...	...	...	...	146	176
INDIAN:	Males	...	...	...	...	...	350	
	Females	...	...	...	...	...	143	229

* Native Infantile Mortality Rate is unreliable because of inadequate registration of births.

(e) VARIOUS CAUSES OF INFANTILE DEATH

(Expressed as percentages)

	EURO-PEAN	NATIVE	COL-oured	INDIAN	ALL RACES
Bowel Infections	4	27	20	18	23.
Syphilis		6			5
Whooping Cough			6		0.5
Other Infectious Diseases	4				0.5
Bronchitis and Pneumonia	33	44	50	37	43
Congenital Debility	4	4			4
Premature Birth	26	10	12	27	12
Injury at Birth		1.5			1
Congenital Malformations	7	0.5	12		1
Other Infantile Diseases	22	7		18	10
	100	100	100	100	100

MATERNAL MORTALITY

(a) TOTAL DEATHS: IN CAUSES

	EURO- PEAN	NATIVE	COL- OURED	INDIAN	ALL RACES
I. SEPTIC					
Post-Abortive Sepsis ...	1	1			2
Puerperal Sepsis ...		1			1
TOTAL ...	1	2	0	0	3
II. NON-SEPTIC					
Obstructed Labour ...		2			2
Cardiac Failure ...		1			1
Toxaemia of Pregnancy		1			1
Puerperal Haemorrhage ...		1			1
TOTAL ...	0	5	0	0	5
GRAND TOTAL ...	1	7	0	0	8

(b) TOTAL DEATHS: IN AGE GROUPS

	SEPTIC					NON-SEPTIC				
	E.	N.	C.	As.	Total	E.	N.	C.	As.	Total
15-19 ...					0		2			2
20-24 ...		1			1		1			1
25-29 ...					0		1			1
30-34 ...		1			1					0
35-39 ...	1				1		1			1
40-44 ...					0					0
45-49 ...					0					0
TOTAL ...	1	2	0	0	3	0	5	0	0	5

(c) DEATH RATES PER 1,000 LIVE BIRTHS

	SEPTIC	NON-SEPT.	ALL CAUSES
EUROPEAN ...	1.8		1.8
NATIVE ...	5.75	14.4	20.1
COLOURED ...			
INDIAN ...			
ALL RACES ...	2.9	4.8	7.7

PULMONARY TUBERCULOSIS

(Including Silicosis with T.B.)

(a) NOTIFICATIONS: IN DISTRICTS

		EURO-PEAN			NATIVE			COL-oured			INDIAN			ALL RACES		
		M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Township	...	10	4	14	1	0	1	1	0	1	1	1	1	12	4	16
Location	...				15	10	25	3	5	8	1	1	2	19	16	35
Semi-Rural Areas	...	1	0	1							1	1	2	1	0	1
(A)	...	11	4	15	16	10	26	4	5	9	1	1	2	32	20	52
New Kleinfontein	...				4	0	4							4	0	4
Van Ryn Estates	...				11	0	11							11	0	11
Modder B	...	1	0	1	5	0	5	1	1	2				7	1	8
Modder Deep	...				5	0	5							5	0	5
Modder East	...				1	0	1							1	0	1
New Modder	...	1	0	1	14	0	14							15	0	15
Van Ryn Deep	...				6	0	6							6	0	6
(B)	...	3	0	3	45	0	45	1	1	2	0	0	0	49	1	50
TOTAL	...	14	4	18	61	10	71	5	6	11	1	1	2	81	21	102

(b) DEATHS: IN DISTRICTS

		EURO-PEAN			NATIVE			COL-oured			INDIAN			ALL RACES		
		M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Township	...	4	3	7										4	3	7
Location	...				11	9	20	3	1	4				14	10	24
Semi-Rural Areas	...	1	0	1										1	0	1
(A)	...	5	3	8	11	9	20	3	1	4	0	0	0	19	13	32
New Kelinfontein	...				1	0	1							1	0	1
Van Ryn Estates	...				2	0	2	1	1	2				3	1	4
Modder B	...															
Modder Deep	...															
Modder East	...															
New Modder	...	1	0	1	2	0	2							3	0	3
Van Ryn Deep	...				2	0	2							2	0	2
(B)	...	1	0	1	7	0	7	1	1	2	0	0	0	9	1	10
TOTAL	...	6	3	9	18	9	27	4	2	6	0	0	0	28	14	42

(c) INCIDENCE AND DEATH RATES

		INCIDENCE RATES (Notifications per 1,000 population)	DEATH RATES (Deaths per 1,000 population)
Europeans	...	0.78	0.39
Natives—Mines	...	1.33	0.22
Natives—Non-Mines	...	1.21	0.86
Coloured	...	5.50	3.00
Indian	...	1.82	0.00
All Non-Europeans	...	1.43	0.56
ALL RACES	...	1.25	0.51

LUNG DISEASES (Non-Tubercular)

(Excluding Influenza)

(a) TOTAL DEATHS: IN MONTHS

	EURO-PEAN			MIN. NAT.			NON-M. NAT.			COL-oured			INDIAN			ALL RACES		
	M.	F.	T.	M.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
July ...	8	2	10	6	10	7	17	1	1	2	4	2	6	29	12	41		
August ...	6	2	8	7	8	4	12	0	1	1				21	7	28		
September ...	1	3	4	3	7	4	11	0	2	2	0	1	1	11	10	21		
October ...	4	1	5		13	14	27	1	1	2	0	1	1	18	16	34		
November ...	3	1	4	3	9	0	9	0	1	1	1	0	1	16	2	18		
December ...				1	8	3	11	1	0	1	0	1	1	10	4	14		
January ...	1	1	2	4	3	5	8				0	1	1	8	7	15		
February ...	2	0	2	3	5	8	13				1	0	1	11	8	19		
March ...	0	1	1	2	4	5	9	1	0	1				7	6	13		
April ...	0	3	3	1	11	10	21	1	1	2				13	14	27		
May ...	3	1	4		14	14	28							17	15	32		
June ...	3	0	3		5	9	14	1	0	1	1	0	1	10	9	19		
TOTAL ...	31	15	46	30	97	83	180	6	7	13	7	5	12	171	110	281		

(b) TOTAL DEATHS: IN DISTRICTS

	EURO-PEAN			NATIVE			COL-oured			INDIAN			ALL RACES		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Township ...	20	12	32	4	0	4							24	12	36
Location ...				75	73	148	6	6	12	7	5	12	88	84	172
Semi-Rural Areas ...	3	2	5	8	4	12							11	6	17
(A) ...	23	14	37	87	77	164	6	6	12	7	5	12	123	102	225
New Kleinfontein ...				16	5	21							16	5	21
Van Ryn Estates ...				6	0	6							6	0	6
Modder B ...	4	1	5	5	0	5							9	1	10
Modder Deep ...	1	0	1	1	0	1							2	0	2
Modder East ...				0	1	1							0	1	1
New Modder ...	3	0	3	8	0	8	0	1	1				11	1	12
Van Ryn Deep ...				4	0	4							4	0	4
(B) ...	8	1	9	40	6	46	0	1	1	0	0	0	48	8	56
TOTAL ...	31	15	46	127	83	210	6	7	13	7	5	12	171	110	281

(c) DEATH RATES PER 1,000 POPULATION PER ANNUM

EUROPEAN ...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.98
MINING NATIVES ...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.93
NON-MINING NATIVES ...	...	...	...	...	...	...	...	...	...	...	...	...	...	7.76
COLOURED ...	...	...	...	...	...	...	...	...	...	...	...	...	...	6.50
INDIAN ...	...	...	...	...	...	...	...	...	...	...	...	...	...	10.91
ALL NON-EUROPEAN ...	...	...	...	...	...	...	...	...	...	...	...	...	...	4.01
ALL RACES ...	...	...	...	...	...	...	...	...	...	...	...	...	...	3.46

TOTAL OF ACUTE INTESTINAL INFECTIONS

(Including Enteric, Enteritis and Dysentery)

(a) TOTAL DEATHS: IN MONTHS

	EURO-PEAN			MIN. NAT.			NON-M. NAT.			COL-OURED			INDIAN			ALL RACES		
	M.	F.	T.	M.			M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
July ...				2			1	1	2							3	1	4
August ...					1	0	1									1	0	1
September ...																0	0	0
October ...					2	3	5	1	0	1						3	3	6
November ...					8	6	14	0	1	1						9	7	16
December ...					17	18	35	1	0	1						18	18	36
January ...				1	6	5	11						1	0	1	7	5	12
February ...		1	0	1	6	3	9	0	1	1						7	4	11
March ...					1	3	2	5	1	0	1					6	2	8
April ...					3	4	7									3	5	8
May ...					2	1	3									2	1	3
June ...				1												1	0	1
TOTAL	1	0	1	5	49	43	92	3	2	5	2	1	3	60	46	106	

(b) TOTAL DEATHS: IN DISTRICTS

	EURO-PEAN			NATIVE			COL-OURED			INDIAN			ALL RACES			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
Township ...	1	0	1	4	3	7							5	3	8	
Location ...				37	34	71	2	2	4	2	1	3	41	37	78	
Semi-Rural Areas ...				5	1	6							5	1	6	
(A) ...	...	1	0	1	46	38	84	2	2	4	2	1	3	51	41	92
New Kleinfontein ...					1	3	4							1	3	4
Van Ryn Estates ...					2	0	2							2	0	2
Modder B ...					1	2	3	1	0	1				2	2	4
Modder Deep ...					1	0	1							1	0	1
Modder East ...														0	0	0
New Modder ...					3	0	3							3	0	3
Van Ryn Deep ...														0	0	0
(B) ...	...	0	0	0	8	5	13	1	0	1	0	0	0	9	5	14
TOTAL ...	...	1	0	1	54	43	97	3	2	5	2	1	3	60	46	106

(c) DEATH RATES PER 1,000 POPULATION PER ANNUM

EUROPEAN ...	...	...	...	...	...	...	...	0.04
MINING NATIVES ...	...	...	...	...	...	...	...	0.15
NON-MINING NATIVES ...	...	...	...	...	...	...	...	3.97
COLOURED ...	...	...	...	...	...	...	...	2.50
INDIAN ...	...	...	...	...	...	...	...	2.73
ALL NON-EUROPEAN ...	...	...	...	...	...	...	...	1.80
ALL RACES ...	...	...	...	...	...	...	...	1.30

TYPHOID AND PARATYPHOID FEVERS

(a) NOTIFICATIONS: DISTRICTS

	EURO-PEAN			NATIVE			COL-OURED			INDIAN			ALL RACES		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Township	5	1	6	1	1	2							6	2	8
Location				10	2	12	2	1	3	1	0	1	13	3	16
Semi-Rural Areas	3	0	3				2						3	0	3
(A)	8	1	9	11	3	14	2	1	3	1	0	1	22	5	27
New Kleinfontein				4	0	4							4	0	4
Van Ryn Estates				3	0	3							3	0	3
Modder B	1	0	1	1	1	2							2	1	3
Modder Deep				1	0	1							1	0	1
Modder East													0	0	0
New Modder	1	0	1	2	0	2	1	0	1				4	0	4
Van Ryn Deep	2	0	2										2	0	2
(B)	4	0	4	11	1	12	1	0	1	0	0	0	16	1	17
TOTAL	12	1	13	22	4	26	3	1	4	1	0	1	38	6	44

(b) DEATHS: DISTRICTS

	EURO-PEAN			NATIVE			COL-OURED			INDIAN			ALL RACES		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Township				0	1	1							0	1	1
Location				5	1	6	0	1	1	1	0	1	6	2	8
Semi-Rural Areas															
(A)	0	0	0	5	2	7	0	1	1	1	0	1	6	3	9
New Kleinfontein													0	0	0
Van Ryn Estates				1	0	1							1	0	1
Modder B				1	0	1	1	0	1				1	0	1
Modder Deep				1	0	1							1	0	1
Modder East				1	0	1							0	0	0
New Modder				1	0	1							1	0	1
Van Ryn Deep													0	0	0
(B)	0	0	0	3	0	3	1	0	1	0	0	0	4	0	4
TOTAL	0	0	0	8	2	10	1	1	2	1	0	1	10	3	13

(c) INCIDENCE AND DEATH RATES

	INCIDENCE RATES (Notifications per 1,000 population)	DEATH RATES (Deaths per 1,000 population)	CASE MORTALITY RATES (Deaths per 100 cases)
EUROPEAN	0.56	0.00	0
NATIVES—Mines	0.31	0.09	30
NATIVES—Non-Mines	0.68	0.30	44
COLOURED	2.00	1.00	75
INDIANS	0.90	0.90	0
ALL NON-EUROPEANS	0.53	0.22	42
ALL RACES	0.54	0.16	30

DIARRHOEA AND ENTERITIS

(Under 2 years)

(a) TOTAL DEATHS: IN MONTHS

	EURO-PEAN			MIN. NAT.			NON-M. NAT.			COL-oured			INDIAN			ALL RACES		
	M.	F.	T.	M.			M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
July							1	1	2							1	1	2
August							1	0	1							1	0	1
September ...																0	0	0
October							2	3	5	1	0	1				3	3	6
November ...							6	6	12	0	1	1	1	0	1	7	7	14
December ...							14	17	31	1	0	1				15	17	32
January							4	5	9							4	5	9
February							4	3	7							5	3	8
March	1	0	1				2	2	4							2	2	4
April							3	3	6							3	4	7
May							2	1	3							2	1	3
June																0	0	0
TOTAL	1	0	1	0	39	41	80	2	1	3	1	1	2	43	43	86		

(b) TOTAL DEATHS: IN DISTRICTS

	EURO-PEAN			NATIVE			COL-oured			INDIAN			ALL RACES			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
Township	1	0	1	4	2	6							5	2	7	
Location				27	33	60	2	1	3	1	1	2	30	35	65	
Semi-Rural Areas				5	1	6							5	1	6	
(A)	1	0	1	36	36	72	2	1	3	1	1	2	40	38	78	
New Kleinfontein							1	3	4					1	3	4
Van Ryn Estates							1	0	1					1	0	1
Modder B				1	2	3								1	2	3
Modder Deep														0	0	0
Modder East														0	0	0
New Modder														0	0	0
Van Ryn Deep														0	0	0
(B)	0	0	0	3	5	8	0	0	0	0	0	0	3	5	8	
TOTAL	1	0	1	39	41	80	2	1	3	1	1	2	43	43	86	

(c) DEATH RATES PER 1,000 POPULATION PER ANNUM

EUROPEAN ... ...	...	...	...	...	...	...	...	...	...	0.04
MINING NATIVES ...	...	...	...	...	...	...	...	...	...	—
NON-MINING NATIVES ...	...	...	...	...	...	...	...	...	...	3.45
COLOURED ... ...	...	...	...	...	...	...	...	...	...	1.5
INDIAN ... ...	...	...	...	...	...	...	...	...	...	1.8
ALL NON-EUROPEAN ...	...	...	...	...	...	...	...	...	...	1.45
ALL RACES ... ...	...	...	...	...	...	...	...	...	...	1.05

CANCER

(a) TOTAL DEATHS: IN ORGANS AFFECTED

	EURO-PEAN			NATIVE			COL-OURED			INDIAN			ALL RACES			
	M.	F.	T.	Mines Males	Non-M. M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
101 Stomach ...	3	0	3											3	0	3
Liver ...	1	0	1		1	2	3	1	0	1				3	2	5
Small Intestine	0	1	1				1							0	1	1
Peritoneum														1	0	1
103 Uterus ...	0	2	2											0	2	2
104 Ovary ...	0	1	1											0	1	1
106 Breast ...	0	2	2											0	2	2
108 Face ...	0	1	1											0	1	1
109 Brain ...	1	0	1											1	0	1
Thyroid ...	0	1	1											0	1	1
Myeloma ...														1	0	1
120 Fibromyomata								0	1	1				0	1	1
122 Ill-defined ...	1	0	1											1	0	1
TOTAL ...	6	8	14	1	2	3	5	1	0	1	0	0	0	10	11	21

(b) TOTAL DEATHS: IN AGE GROUPS

	EURO-PEAN			NATIVE			COL-OURED			INDIAN			ALL RACES			
	M.	F.	T.	Min. Males	Non-M. M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0-24 ...				1										1	0	1
25-44 ...					1	1	2	1	0	1				2	1	3
45-64 ...	4	6	10		1	1	2	1						5	7	12
65-up ...	2	2	4		0	1	1							2	3	5
TOTAL ...	6	8	14	1	2	3	5	1	0	1	0	0	0	10	11	21

(c) DEATH RATES PER 1,000 POPULATION PER ANNUM

EUROPEAN ...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.60
MINING NATIVES ...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.03
NON-MINING NATIVES ...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.22
COLOURED ...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.50
INDIAN ...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.00
ALL NON-EUROPEAN ...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.12
ALL RACES ...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.26

MEASLES

(a) NOTIFICATIONS: IN MONTHS

	Euro-pean			Min. Natives			Non-Min. Natives			Coloured			Indian			Total		
	M.	F.	T.	Males	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
July ...	15	6	21	12	5	4	9	0	1	1	1	0	1	32	11	43		
August ...	15	12	27	14	1	2	1				1	0	1	31	13	44		
September ...	22	45	67	7	0	1	1							29	46	75		
October ...	28	26	54	2	1	0	1							31	26	57		
November ...	6	0	5	8							1	0	1	15	0	15		
December ...	0	2	2	3	0	1	1							3	3	6		
January ...	1	1	2	2	0	1	1							3	2	5		
February ...	0	1	1	3										3	1	4		
March ...	0	0	0	11										11	0	11		
April ...	0	2	2	1										1	2	3		
May ...	2	1	3	12										14	1	15		
June ...	3	2	5	34										37	2	39		
TOTAL ...	92	98	190	109	7	8	15	0	1	1	2	0	2	210	107	317		

(b) NOTIFICATIONS: IN DISTRICTS

	Euro-pean			Native			Coloured			Indian			All Races		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Township: Proper ...	56	72	128	1	0	1				1	0	1	58	72	130
Northmead ...	16	13	29										16	13	29
Westdene ...	3	1	4										3	1	4
Location ...				5	7	12	0	1	1	1	0	1	6	8	14
Sem-Rural Areas ...	4	8	12	1	0	1							5	8	13
(A)	79	94	173	7	7	14	0	1	1	2	0	2	88	102	190
New Kleinfontein ...	0	1	1	10	0	10							10	1	11
Van Ryn Estates ...	0	1	1	7	1	8							7	2	9
Modder B ...	5	2	7										5	2	7
Modder Deep ...	2	0	2	20	0	20							22	0	22
Modder East ...	3	0	3										3	0	3
New Modder ...	2	0	2	28	0	28							30	0	30
Van Ryn Deep ...	1	0	1	44	0	44							45	0	45
(B)	13	4	17	109	1	110	0	0	0	0	0	0	122	5	127
TOTAL	92	98	190	116	8	124	0	1	1	2	0	2	210	107	317

(c) NOTIFICATION: IN AGE GROUPS

YEARS	Euro-pean			Min. Nat.			Non-M. Nat.			Coloured			Indian			Total			
	M.	F.	T.	M.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0	0	1	1					0	1	1				0	2	2			
1	2	4	6		3	3	6							5	7	12			
2	3	3	6		0	2	2							4	5	9			
3	10	6	16		1	1	2							11	7	18			
4	4	6	10											4	6	10			
5-9	59	68	127		1	2	3							61	70	131			
10-14	8	8	16											8	8	16			
15-19	1	1	2		19									20	1	21			
20-24	2	0	2		60			1	0	1				63	0	63			
25-up	3	1	4		30			1	0	1				34	1	35			
TOTAL ...	92	98	190		109			7	8	15	0	1	1	2	0	2	210	107	317

(d) INCIDENCE AND DEATH RATES

	INCIDENCE RATES notification per 1,000 population			DEATH RATES (Deaths per 1,000 population)		
	European	Mining Natives	Non-Mining Natives	Coloured	Indian	All Non-European
European ...	8.19					0.00
Mining Natives ...	3.38					0.00
Non-Mining Natives ...	0.65					0.04
Coloured ...	0.50					0.00
Indian ...	1.82					0.00
All Non-European ...	2.17					0.02
ALL RACES ...	3.88					0.01

N.B.—NOTIFICATION is made only of the first case occurring (within 28 days) in a household. But *all* cases among Mining Natives are included in these returns.

CEREBRO-SPINAL MENINGITIS

(a) NOTIFICATIONS: IN DISTRICTS

		Euro-pean			Native			Coloured			Indian			All Races			
		M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
Township	...	0	1	1	1	1	2							0	0	0	
Location	...													1	1	2	
Semi-Rural Areas	...													0	1	1	
(A)	...	0	1	1	1	1	2	0	0	0	0	0	0	1	2	3	
New Kleinfontein	...	1	0	1	4	0	4							5	0	5	
Van Ryn Estates	...				2	1	3							2	1	3	
Modder B	...				1	0	1							1	0	1	
Modder Deep	...													0	0	0	
Modder East	...													0	0	0	
New Modder	...				7	0	7							7	0	7	
Van Ryn Deep	...				4	0	4							4	0	4	
(B)	...	1	0	1	18	1	19	0	0	0	0	0	0	0	19	1	20
TOTAL	...	1	1	2	19	2	21	0	0	0	0	0	0	0	20	3	23

(b) DEATHS: IN AGE GROUPS

		European			Natives			Coloured			Indian			All Races		
		M.	F.	T.	M.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0-9	...	0	1	1										0	1	1
10-14	...													0	0	0
15-19	...													0	0	0
20-24	...				1									1	0	1
25-up	...	1	0	1	1	0	1	1						2	1	3
TOTAL	...	1	1	2	2	0	1	1	0	0	0	0	0	3	2	5

(c) INCIDENCE AND DEATH RATES

		INCIDENCE RATES (Notifications per 1,000 population)			DEATH RATES (Deaths per 1,000 population)			CASE MORTALITY RATES (Deaths per 100 Cases)			
		M.	F.	T.	M.	F.	T.	M.	F.	T.	
Europeans	...				0.09			0.09			100
Natives—Mines	...				0.53			0.06			12
Natives—Non. Mines	...				0.17			0.04			25
Coloured	...				—			—			—
Indian	...				—			—			—
All Non-Europeans	...				0.36			0.05			14
ALL RACES	...				0.28			0.06			22

VIOLENCE

(a) TOTAL DEATHS: CAUSES

	EURO-PEAN			MIN. NAT.			NON-M. NAT.			COL-oured			INDIAN			ALL RACES		
	M.	F.	T.	M.			M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Suicide	4	0	4				2	0	2							6	0	6
Homicide ...				2			1	1	2							3	1	4
Accid. Gassing				3												3	0	3
,, Burns ...					3		3	6								3	3	6
,, Suffoc'n.						1	0	1								1	0	1
,, Drowning	2	0	2	2												4	0	4
Mine Accidents	1	0	1	56												57	0	57
Road Accidents	4	2	6	4			4	0	4				1	0	1	13	2	15
Other Accidents	0	2	2	1			4	0	4	0	1	1				5	3	8
TOTAL ...	11	4	15	68			15	4	19	0	1	1	1	0	1	95	9	104

(b) TOTAL DEATHS: IN DISTRICTS

	EURO-PEAN			NATIVE			COL-oured			INDIAN			ALL RACES		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Township	7	3	10	2	0	2	0	1	1				9	4	13
Location				10	4	14							10	4	14
Semi-Rural Areas ...	3	0	3	2	0	2							5	0	5
(A)	10	3	13	14	4	18	0	1	1	0	0	0	24	8	32
New Kleinfontein ...				12	0	12							12	0	12
Van Ryn Estates ...				7	0	7							7	0	7
Modder B				5	0	5							5	0	5
Modder Deep				7	0	7							7	0	7
Modder East													0	0	0
New Modder	1	1	2	19	0	19							20	1	21
Van Ryn Deep				19	0	19				1	0	1	20	0	20
(B)	1	1	2	69	0	69	0	0	0	1	0	1	71	1	72
TOTAL	11	4	15	83	4	87	0	1	1	1	0	1	95	9	104

(c) DEATH RATES PER 1,000 POPULATION

	Suicide	Homicide	Road Accids.	Mine Accids.	Other Violence	Total
European	0.17	0.00	0.26	0.04	0.17	0.64
Mining Natives ...	0.00	0.06	0.12	1.73	0.19	2.10
Non-Mining Natives ...	0.09	0.09	0.17	0.00	0.47	0.82
Coloured	0.00	0.00	0.00	0.00	0.50	0.50
Indian	0.00	0.00	0.91	0.00	0.00	0.91
All Non-European ...	0.03	0.07	0.15	0.96	0.31	1.52
All Races	0.07	0.05	0.18	0.70	0.27	1.27

NOTIFICATIONS OF INFECTIOUS DISEASE

	EURO-PEAN			MIN. NAT.			NON-M. NAT.			COL-OURED			INDIAN			ALL RACES			
	M.	F.	T.	M.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	T.	F.			
Enter. Fever (all)	12	1	13		10			12	4	16	3	1	4	1	0	1	38	6	44
Enter. Fev. (Imp)	3	0	3		3			2	2	4							8	2	10
Pulm. Tubercul.	14	4	18		43			18	10	28	5	6	11	1	1	2	81	21	102
Non-Pulm. Tub.	1	0	1		5			0	1	1	0	2	2				6	3	9
Measles	92	98	190		109			7	8	15	0	1	1	2	0	2	210	107	317
Whooping Cough	50	51	101					3	4	7	1	3	4				54	58	112
Scarlet Fever	10	7	17														10	7	17
C.S. Meningitis	1	1	2		16			3	2	5							20	3	23
Erysipelas	6	5	11		5			1	0	1							12	5	17
Puerperal Fever	0	3	3					0	6	6				0	1	1	0	10	10
Ophth. Neonat.	1	0	1					1	1	2							2	1	3
Diphtheria	6	10	16					2	0	2							8	10	18
Smallpox								0	1	1							0	1	1
Tick Typhus Fev	4	2	6														4	2	6
Undulant Fever	0	1	1														0	1	1
Leprosy...	...				1												1	0	1
Trachoma	...																1	0	1

REMOVALS TO HOSPITAL: INFECTIOUS DISEASES

I.—BOKSBURG-BENONI HOSPITAL

	Euro-pean	Mining Natives	Non-Mining Natives	Coloured	Indian	All Races
C.S. Meningitis ...	1	—	2			3
Diphtheria ...	10		1			11
Enteric Fever ...	2		15	2	1	20
Erysipelas...	4		1			5
Gonococcal Ophthalmia (Contact)			2			2
Ophthalmia Neonatorum	1		1			1
Puerperal Fever ...	2		6		1	9
Scarlet Fever ...	6					6
„ „ (Contact)	1			1		1
Tick Bite Typhus ...						1
Miliary Tuberculosis ...			1			1
Pulmonary T.B. ...	6		20	7	1	34
T.B. Peritonitis ...			1		1	2
T.B. Broncho Pneumonia	1					1
T.B. Cervical Adenitis ...				1		1
Measles ...	3		1			3
Whooping Cough...						1
	37	—	51	11	4	103

II.—MINE NATIVE HOSPITALS

	Euro-pean	Mining Natives	Non-Mining Natives	Coloured	Indian	All Races
C.S. Meningitis ...		7				7
Enteric Fever ...		10		1		11
Para-Typhoid Fever ...		1				1
Erysipelas...		5				5
Measles ...		105				105
Meningococcal Meningitis		11				11
Pulmonary T.B. ...		40				40
T.B. Meningitis ...		1				1
T.B. Glands Neck ...		4				4
T.B. Orchitis ...		1				1
Miliary T.B. ...		1				1
Silicosis and T.B. ...		1				1
T.B. Cervical Glands ...		1				1
	—	188	—	1	—	189

III.—PRIVATE NURSING HOMES AND HOSPITALS

	Euro-pean	Mining Natives	Non-Mining Natives	Coloured	Indian	All Races
Para-typhoid Fever ...	1					1
Enteric Fever ...	10					10
Erysipelas...	2					2
Puerperal Fever ...	1					1
Pulmonary Tuberculosis	3					3
Tick Typhus Fcver ...	2					2
	19	—	—	—	—	19

IV.—SPRINGKELL AND RIETFONTEIN TUBERCULOSIS HOSPITALS

	Euro-pean	Mining Natives	Non-Mining Natives	Coloured	Indian	All Races
Pulmonary Tuberculosis	2		1			3

V.—LEPER INSTITUTION

	Euro-pean	Mining Natives	Non-Mining Natives	Coloured	Indian	All Races
Leprosy		1				1

VI.—RIETFONTEIN ISOLATION HOSPITAL

	Euro-pean	Mining Natives	Non-Mining Natives	Coloured	Indian	All Races
Small pox			1			1
Dermatitis			1			1
Syphilis	5		75			80
," (Contact) ...			1			1
Syphilis and Pregnancy			1			1
Orethritis and Syphilis ...			1			1
Gonorrhoea	5		54	1		60
," (Contact) ...			1			1
Gonorrhoea and Syphilis			18			18
Gonorrhoeal Epidymitis	1					1
Gonorrhoea Ophthalmia			3			3
Ulc. Molle			1	1		1
	11		157	2	--	170

MATERNAL AND CHILD WELFARE

(a) INFANT AND ANTE-NATAL CLINICS

	European		Native	Coloured	Indian	TOTAL
	Town	N'inead				
<i>Infant Clinics:</i>						
New Cases ...	178	53	159	86	8	484
Total Attendees	2266	784	1279	598	32	4959
<i>Ante-Natal Clinics:</i>						
New Cases ...	41	—	235	67	13	356
Total Attendees	164	—	1006	295	52	1517

(b) HOME VISITS, Etc.

	European	Native	Coloured	Indian	All Races
First Visits ...	488	259	80	8	835
Re-Visits ...	2,336	866	335	6	3,543
Ante-Natal Visits ...	51	492	149	13	705
Protected Infants ...	3				3
Still Births ...	12	49	10		71
Infantile Mortality ...	11	101	11	4	127
Infectious Diseases ...	28	100	7		135
Special Investigations ...	17				17
Midwives' bag inspections ...	71	3			74
Nursing Homes ...	7				7
Shops ...	178				178
Bantu Holiday Fund ...		10			10
Puerperal Sepsis ...	8	6		1	15
TOTAL VISITS ...	3,210	1,886	592	32	5,720

VENEREAL DISEASE : ALL CLINICS

	EURO-PEAN			NATIVE			COL-oured			INDIAN			ALL RACES		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>New Cases</i>															
Syphilis, i and ii	10	8	18	165	130	295	5	19	24	2	1	3	182	158	340
Syphilis, iii	2	7	9	170	170	340	6	16	22	0	5	5	178	198	376
Neurosyphilis	0	0	0	0	9	9	0	0	0	0	0	0	0	9	9
Congen. Syphilis	0	0	0	44	36	80	2	6	8	0	0	0	46	42	88
TOTAL SYPHILIS	12	15	27	379	345	724	13	41	54	2	6	8	406	407	813
Gonorrhoea	12	3	15	8	5	13	0	1	1	0	0	0	20	9	29
Other Ven. Dis.	2	2	4	0	0	0	0	0	0	0	0	0	2	2	4
TOTAL V.D.	26	20	46	387	350	737	13	42	55	2	6	8	428	418	846
Await. Diag. 30 June	0	0	0	11	0	11	0	0	0	0	0	0	11	0	11
Non-Ven. Dis.	6	8	14	665	376	1,041	12	38	50	4	12	16	687	434	1,121
TOTAL of Individual New Cases	32	28	60	1,063	726	1,789	25	80	105	6	18	24	1,126	852	1,978
<i>Attendances</i>															
Syphilis, i and ii	117	113	230	978	1,027	2,005	24	158	182	7	1	8	1,126	1,299	2,425
Syphilis, iii	67	54	121	1,145	1,369	2,514	25	97	122	2	12	14	1,239	1,532	2,771
Neurosyphilis	0	0	0	2	9	11	0	0	0	0	0	0	2	9	11
Congen. Syphilis	0	0	0	254	277	531	14	50	64	0	0	0	268	327	595
TOTAL SYPHILIS	184	167	351	2,379	2,682	5,061	63	305	368	9	13	22	2,635	3,167	5,802
Gonorrhoea	61	15	76	29	17	46	0	3	3	0	0	0	90	35	125
Other Ven. Dis.	19	7	26	0	0	0	0	0	0	0	0	0	19	7	26
TOTAL V.D.	264	189	453	2,408	2,699	5,107	63	308	371	9	13	22	2,744	3,209	5,953
Await. Diag. 30 June	0	0	0	11	0	11	0	0	0	0	0	0	11	0	11
Non. Ven. Dis.	10	14	24	695	406	1,101	14	45	59	5	14	19	724	479	1,203
TOTAL ATTEND.	274	203	477	3,114	3,105	6,219	77	353	430	14	27	41	2,479	3,688	7,167
Wassermann Taken	34	28	62	1,127	711	1,838	28	77	105	5	20	25	1,194	836	2,030
positive	20	13	33	414	301	715	15	40	55	1	5	6	450	359	809
N.A.B. Injections	180	164	344	2,330	2,610	4,940	59	286	345	10	16	26	2,579	3,076	5,655
Vaccine Injections	43	11	54	4	2	6	0	0	0	0	0	0	47	13	60

PASS OFFICE: MEDICAL EXAMINATION OF NATIVES

(a) NATIVE MALES

		Examined	Referred To V.D. Clinic	Sent to Riet- fontein V.D. Hospital	Vaccinated
July ...	...	1293	174	8	139
August	...	1523	214	8	136
September	...	1432	170	4	83
October	...	1351	136	5	71
November	...	1228	156	7	42
December	...	924	154	11	29
January	...	1460	248	11	66
February	...	1269	229	12	122
March	...	1518	186	4	103
April	...	1145	122	13	58
May ...	...	1392	165	11	52
June ...	...	1350	168	27	57
TOTAL	...	15885	2122	121	958

(b) NATIVE FEMALES

Examined	...	...	...	...	...	...	48
Referred to V.D. Clinic	...	...	...	...	...	...	7
Sent to Rietfontein V.D. Hospital	...	...	...	...	...	...	26
Vaccinated	...	...	...	...	...	...	4

BOKSBURG-BENONI HOSPITAL
DISTRICT MIDWIFERY SERVICES
CONFINEMENTS ATTENDED

	European	Native	Coloured	Indian	TOTAL
1938					
July ...	1	9	1	0	11
August ...	2	8	4	0	14
September ...	1	17	0	2	20
October ...	1	13	3	2	19
November ...	2	22	3	0	27
December ...	0	11	6	1	18
1939					
January ...	0	15	3	1	19
February ...	0	12	2	2	16
March ...	4	10	7	1	22
April ...	3	9	2	2	16
May ...	2	7	5	0	14
June ...	1	13	3	2	19
TOTAL ...	17	146	39	13	215

BOKSBURG-BENONI HOSPITAL
OUT-PATIENTS' DEPARTMENT

	EUROPEANS		NON-EUROPEANS	
	Patients	Attendances	Patients	Attendances
July ...	81	109	877	1,125
August ...	110	167	768	1,240
September ...	109	167	849	1,140
October ...	99	140	752	1,026
November ...	98	123	955	1,393
December ...	59	116	635	1,055
January ...	132	157	780	1,484
February ...	129	158	928	1,196
March ...	218	236	976	1,143
April ...	192	237	878	1,086
May ...	70	117	668	1,101
June ...	76	197	660	1,362
TOTAL ...	1,373	1,924	9,726	14,351

Average monthly attendances: European 160
Non-European: 1196

ROUTINE SANITATION AND HEALTH INSPECTIONS

Routine Sanitation and Health Inspections—Continued.

Cattle Dealers' Premises	...	...	...	...	...	...	...	25
Other Places where Food is manufactured	...	...	...	...	...	...	158	
Other Factories and Workshops	...	...	...	...	...	...	18	
Residential Hotels and Boarding Houses	...	...	...	...	...	...	151	
Hawkers' Premises	...	...	...	...	...	...	131	
Hawkers' Carts	...	...	...	...	...	...	24	
Pedlars' Premises	...	...	...	...	...	...	19	
Pedlars' Vehicles	...	...	...	...	...	...	2	
Theatres and Bioscopes	...	...	...	...	...	...	10	
Hairdressers	...	...	...	...	...	...	190	
Laundries	...	...	...	...	...	...	3	
Common Lodging Houses	...	...	...	...	...	...	2	
Accumulation of Manure	...	...	...	...	...	...	16	
Horse Stables	...	...	...	...	...	...	2,119	
Keeping of Animals	...	...	...	...	...	...	867	
Private Cowsheds	...	...	...	...	...	...	41	
Piggeries	...	...	...	...	...	...	12	
Mosquito Complaints	...	...	...	...	...	...	175	
Refuse Tips	...	...	...	...	...	...	212	
Refuse: Accumulation	...	...	...	...	...	...	45	
Refuse bins: Broken, insufficient, etc.	...	...	...	...	...	...	269	
Wash Houses	...	...	...	...	...	...	20	
Waste Water Receptacles	...	...	...	...	...	...	396	
Water Closets: Dirty	...	...	...	...	...	...	8	
Defective	...	...	...	...	...	...	3	
Insufficient	...	...	...	...	...	...	12	
Pail Closets: Dirty	...	...	...	...	...	...	30	
Defective	...	...	...	...	...	...	89	
Insufficient	...	...	...	...	...	...	10	
Drains, defective, choked, etc.	...	...	...	...	...	...	80	
Courts, alleys, lanes	...	...	...	...	...	...	130	
Public Sanitary Conveniences	...	...	...	...	...	...	507	
Undrained Premises	...	...	...	...	...	...	5	
Native Housing	...	...	...	...	...	...	903	
House inspections	...	...	...	...	...	...	4,402	
Other housing inspections	...	...	...	...	...	...	5	
Premises: Constructional Repairs	...	...	...	...	...	...	309	
Open Ground	...	...	...	...	...	...	15	
Sites or Premises <i>re</i> deposited Plans	...	...	...	...	...	...	106	
Disinfection of Premises	...	...	...	...	...	...	20	
Visits for Widal Tests (Food Handlers)	...	...	...	...	...	...	57	
Visits to Compounds: Mine	...	...	...	...	...	...	255	
Visits to Compounds: Private	...	...	...	...	...	...	17	
Complaints	...	...	...	...	...	...	192	
Special Interviews	...	...	...	...	...	...	635	
Other visits	...	...	...	...	...	...	791	
							26,785	

MUNICIPAL ABATTOIR

Animals Slaughtered

Oxen	...	...	...	...	...	...	...	31,479
Sheep	...	...	...	...	...	...	...	46,322
Calves	...	...	...	...	...	...	...	507
Pigs	...	...	...	...	...	...	...	769
								<hr/>
	Total	...	...	...	...	...	...	<u>79,077</u>

Income

Slaughtering Fees	...	...	...	...	...	5,157
Examination of Meat	...	...	...	...	...	652
Rents and Disinfections	...	...	...	...	...	424
Commission on Levies	...	...	...	...	...	101
By-Products	...	...	...	...	...	1,829
Cold Storage Fees	...	...	...	...	...	1,826
						<hr/>
	Total Income	...	...	...	...	<u>£9,989</u>
	Total Expenditure	...	...	...	...	<u>£10,633</u>

By-Products (in lbs.)

		Blood Meal	Meat Meal	Fat
Balance 1st July 1938	...	400	400	430
Produced 1938-39	...	257,800	189,800	28,885
	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL	...	268,200	190,200	29,315
Sales 1938-1939	...	265,750	188,600	21,190
Stock in Hand, 30 June 1939	2,450		1,600	8,125

“Measles” and Tuberculosis

Condemnations and Detentions

		“Measles”				Tuberculosis	
		Cold Storage		Condemned		Condemned	
		Total	%	Total	%	Total	%
Oxen	...	551	1.75	71	0.22	22	0.07
Pigs	...	—	—	47	6.11	1	0.13

“Measly” Carcasses to Cold Storage

			Number	Weight
Local	...	...	551	284,300
Imported	...	...	482	241,000

FOODSTUFFS CONDEMNED

(From Food Shops, Municipal Market, etc.)

FRUIT AND VEGETABLES—

Avocado Pears	...	...	...	...	...	40 Boxes
Beans (Green)	...	...	...	...	...	8 Pockets
Cabbages	...	...	...	...	...	3 Bags
Cherries	...	...	...	...	...	14 Trays
Grape Fruit	...	...	...	...	...	15 Pockets
Grenadillas	...	...	...	...	...	12 Trays
Guavas	...	...	...	...	...	8 Boxes
Lemons	...	...	...	...	...	8 Pockets
Mangoes	...	...	...	...	...	20 Trays
Oranges	...	...	...	...	...	22 Pockets, 21 Cases
Pawpaws	...	...	...	...	...	6 Boxes
Pears	...	...	...	...	...	7 Boxes
Pineapples	...	...	...	...	...	4
Potatoes	...	...	...	...	...	2 Bags
Tomatoes	...	...	...	...	...	141 Boxes
Water Melons	...	...	...	...	...	2 Scotch Cart Loads

VARIOUS FRESH FOODS—

Cheese	...	...	...	...	...	131 lbs.
Crayfish	...	...	...	...	...	1 Case
Dressed Poultry	...	...	...	...	...	62, 4 Boxes
Eggs	...	...	...	...	...	220 Dozen
Fish	...	...	...	...	...	536 lbs.

TINNED FOODS—

Baked Beans	...	...	...	...	...	19 Tins
Canned Fruit	...	...	...	...	...	39 2-lb. tins
						7 1-lb. tins
Coffee	...	...	...	...	...	3 1-lb. tins
Corned Beef	...	...	...	...	...	3 Tins
Corn Flakes	...	...	...	...	...	6 Packets
Corn Flour	...	...	...	...	...	4 $\frac{1}{2}$ -lb. tins
Curried Fish	...	...	...	...	...	10 Tins
Fish Pastes	...	...	...	...	...	17 Tins
Custard Powder	...	...	...	...	...	4 lbs.
Herrings in Tomato Sauce	...	...	...	...	...	120 Large Tins
						293 Small Tins
Jams	...	...	...	...	...	72 Tins
Mabela	...	...	...	...	...	6 3-lb. Packets
Maizena	...	...	...	...	...	4 $\frac{1}{2}$ -lb. Packets
Condensed Milk	...	...	...	...	...	7 Tins
Onions	...	...	...	...	...	5 Bottles
Pilchards	...	...	...	...	...	29 Tins
Pickles	...	...	...	...	...	8 Bottles
Sauerkraut	...	...	...	...	...	6 Tins
Salmon	...	...	...	...	...	33 1-lb. tins
						3 $\frac{1}{2}$ -lb. tins
Sardines	...	...	...	...	...	159 Tins
Sweet Corn	...	...	...	...	...	7 Tins
Sweets	...	...	...	...	...	49 lbs.
Sweets (Chocolates)	...	...	...	...	...	36 Boxes
Tinned Fish	...	...	...	...	...	491 Tins
Tiger Barley	...	...	...	...	...	4 1-lb. tins
Vienna Sausages	...	...	...	...	...	17 Tins
Assorted Tinned Foods	...	...	...	...	...	455 Tins

FOODS, DRUGS, ETC., ACT—

I.—SAMPLES FOR CHEMICAL ANALYSIS

Milk—44 samples taken.

Milk Fat above 4%	...	...	...	...	8
Milk Fat between 3.5 and 4%	...	...	...	...	16
Milk Fat between 3.0 and 3.5%	...	...	...	...	13
Milk Fat below 3%	...	...	...	...	6
For taint or any other injurious matter	...	...	...	...	1

Other Foodstuffs—6 samples taken.

Cream 1; Ice Cream 3; Water 2.

6 samples of milk and 2 of Ice-Cream were found to be adulterated.

II.—SAMPLES FOR BACTERIOLOGICAL ANALYSIS

Ice Cream—5 samples taken.

B. Coli present in 0.1 c.c.	...	...	...	...	1
B. Coli not isolated from 0.1	...	...	...	...	2
B. Coli present in .001 c.c.	...	...	...	...	2

Milk—6 samples taken.

B. Coli present in 0.1 c.c.	...	...	...	...	2
B. Coli present in .01 c.c.	...	...	...	...	3
B. Coli present in .001 c.c.	...	...	...	...	1

Water—9 samples taken.

Total count less than 100 organisms per c.c.	...	...	8
Total count less than 1,000 organisms per c.c.	...	...	1
B. Coli not isolated in 1 c.c.	...	...	1
B. Coli not isolated in 10 c.c.	...	...	8

PROSECUTIONS

LAW	OFFENCE	PENALTY
Food, Drugs and Disinfectants Act, Section 7 (1)	Adulterated Milk	Guilty—Fined £3
Food, Drugs and Disinfectants Act, Section 7 (1)	Adulterated Milk	Guilty—Fined £5
Food, Drugs and Disinfectants Act, Section 7 (1)	Adulterated Milk	Not Guilty— Discharged
Food, Drugs and Disinfectants Act, Section 7 (1)	Adulterated Milk	Guilty—Repri- manded
Food, Drugs and Disinfectants Act, Section 17 (3)	Adulterated Milk	Guilty—Fined £1
Food, Drugs and Disinfectants Act, Section 17 (3)	Adulterated Milk	Guilty—Fined £2 10s.
Food, Drugs and Disinfectants Act, Section 11	Adulterated Ice Cream	Admission of guilt—Fined £2
Food, Drugs and Disinfectants Act, Section 11	Adulterated Ice Cream	Admission of guilt—Fined £2
Abattoir Bye-Laws, Section 97	Unstamped Meat	Admission of guilt—Fined £10
Bakery Bye-Laws, Section 7 (b)	Dirty Bakery Premises	Admission of guilt—Fined £7 10s.
Public Health Act, Section 18 (b) (Government Notice 764 of 1938)	Contravention of Midwifery Regu- lations	Guilty—Fined £6 or six weeks' im- prisonment with hard labour, £3 of which was suspended for a period of 12 months on con- dition that dur- ing that period she refrains from practising midwifery.
Public Health Act, Section 18 (b) (Government Notice 764 of 1938)	Contravention of Midwifery Regu- lations	Not guilty— Discharged.

LICENCE APPLICATIONS

(a) DEALERS (WHOLESALE AND RETAIL)

	Applications Received	Applications Approved (No Conditions)	Applications Approved (After Conditions Completed)	Applications not in Order	Applications Withdrawn	Insufficient Address
Gen. Dealers	339	258	2	75	—	4
A'ted Water Manufacts.	2	2	—	—	—	—
Butchers	63	49	—	13	1	—
Boarding and Lodg. Hses.	22	19	1	2	—	—
Eating and Refr. Rooms	51	45	—	6	—	—
Bakers and Millers ...	9	7	—	2	—	—
Hairdressers	30	28	—	2	—	—
Hotel-Dining Rooms ...	10	8	1	1	—	—
Hawkers ...	112	82	1	23	—	6
Fishmongers	8	6	1	1	—	—
Fresh Prod. Dealers ...	167	145	—	22	—	—
Entertainmt. Houses ...	6	5	—	1	—	—
Kaffir Eating Houses ...	38	32	—	4	2	—
Fumigators	9	9	—	—	—	—
Total ...	866	695	6	152	3	10

(b) DAIRIES AND MILKSHOPS

	Applications Received	Applications Approved (No Conditions)	Applications Approved (After Conditions Completed)	Applications Not in Order	Applications Withdrawn
Registration: Dairies	25	18	3	3	1
Permits to Introduce Milkshops	34	16	13	2	3
Total	19	9	8	1	1
Total	78	43	24	6	5

VERMIN CONTROL

RODENTS:—

No. of Holes Treated	...	...	...	...	17,738
Amount of Cyano Gas used	...	...	...	...	1,410 lbs.
,, Poisoned Wheat used	...	...	...	...	301 lbs.
,, Capex Cartridges used	...	...	...	...	2 gross
,, Sugar used	...	...	...	...	50 lbs.
,, Strychnine used	...	...	...	...	18 ozs.
,, Paraffin used	...	...	...	...	30 gallons.
,, Bird Lime used	...	...	...	...	24 tins

No. of Rodents killed:—

Domestic Rats (<i>Ratus Ratus</i>) ...	...	...	10,410
Domestic Mice (<i>Mus Musculus</i>)	...	...	5,455
Gerbilles (<i>Taterona Lobengula</i>)	...	...	2,087
Striped Mice	...	...	26
Multimammates	...	...	37
Other Species (including Water Rats)	...	...	138
			18,153

MOSQUITOES:—

Areas mainly concentrated on:

Laundry Dam, Kleinfontein Dam, Middle Dam, Homestead Lake, Apex Dam, Marshes immediately behind the Benoni Station and other situated behind this Station and the Kleinfontein Halt.

Vermin Officer's Remarks:—

"Although various species of Anophelines were found no actual malaria vectors were evident."

Amount of	Pyagra used	...	...	...	3 gallons.
"	Malaroil used	...	...	...	28 drums
"	Cotton Waste used	...	...	...	35 lbs.

FLIES:—

The following inspections were made to premises:—

1,677 (Town) 768 (Location)

TERMITES:—

Areas: Northmead, Westdene and Township.

116 inspections were made to premises: and 89 termitaries successfully dealt with.



